UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK
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IN RE:

GENERAL MOTORS LLC   14-MD-2543 (JMF)
IGNITION SWITCH LITIGATION   14-CV-05810
                                                           15-CV-01626

This Document Relates To All Actions
                                                      Hon. Jesse M. Furman

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**MEMORANDUM OF LAW IN SUPPORT OF GENERAL MOTORS LLC'S
MOTION TO EXCLUDE THE OPINIONS OF STEFAN BOEDEKER**

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Dated: September 21, 2018

TABLE OF CONTENTS

TABLE OF AUTHORITIES

Page(s)

Cases

iv

Statutes

Rules

INTRODUCTION

Plaintiffs seek to recover economic loss damages on a class-wide basis for every post-Sale purchaser or lessor of vehicles subject to seven different recalls. To prove both the fact of injury and the amount of the claimed "overpayment" when each plaintiff purchased or leased a vehicle, plaintiffs repeatedly told the Court that the benefit-of-the-bargain damages are measured by calculating the difference between the market price at the time of sale versus the market price they would have paid if the subject recall defects had been disclosed at the point of purchase. That measure of damages also is consistent with this Court's holdings (and the law) regarding how benefit-of-the-bargain economic loss damages must be calculated.

As discovery unfolded, however, plaintiffs learned they had a serious problem. Specifically, neither real-world marketplace data, nor the testimony of nearly one hundred putative class representatives, supports their benefit-of-the-bargain damages claims. Faced with the realization that their purported classes could not prove actual economic injuries, plaintiffs and their economic loss experts resorted to a novel damages methodology that does not address differences in vehicle market values resulting from alleged misrepresentations or omissions, *i.e.*, the benefit-of-the-bargain damages that the Court permitted plaintiffs to seek. Instead, plaintiffs' damages construct is predicated entirely on compensating millions of diverse purchasers and lessors of varying vehicles and varying recalls for historical risks of vehicle malfunctions that never occurred.

Plaintiffs hired Stefan Boedeker to bridge the gap between the real-world facts and the benefit-of-the-bargain economic loss damages theory they advance here. Boedeker designed a novel damages methodology that suspends traditional economic principles and discards the recognized legal framework for awarding benefit-of-the-bargain damages—*i.e.,* the difference in vehicle market price framework. His contrived "penalty"-based damages methodology is

untethered to economics or the law. Using this methodology, Boedeker opines that the "aggregate" economic loss damages total over $3 billion across the three Bellwether states (California, Missouri, and Texas). Boedeker's novel methodology and opinions are inadmissible and should not be considered under *Daubert* and Rule 702 for seven fundamental reasons:

First, Boedeker's methodology is built on untested assumptions that are both erroneous and contrary to the undisputed real-world factual record. These assumptions are fundamental to his methodology and his methodology cannot work without them.

Second, Boedeker's damages methodology and opinions do not calculate market prices for vehicles; instead, they are unreliable, answer the wrong questions, and do not "fit" the issues in this case. In this regard, plaintiffs repeatedly have alleged that had the recall condition defects been disclosed at or before the time of sale, they "***would have paid"*** less for their vehicles. But Boedeker did not calculate the difference between actual vehicle prices paid and the prices that would have been paid if the defects were disclosed. In fact, he did not study or calculate vehicle prices at all, choosing instead to conduct conjoint surveys to calculate damages based upon various made-up safety feature scenarios, which do not even exist in the real world.

Third, Boedeker's damages methodology cannot calculate market prices for safety feature scenarios, vehicles, or anything else. Thus, even with respect to the calculations Boedeker did for his various scenarios, he did not determine the market prices that plaintiffs "would have paid" based on supply *and* demand curves—as required by both economics and law. Instead, Boedeker purported to calculate what survey participants "***would have been willing to pay***" regardless of any supply curve. The problem with this is that Boedeker's "would have been willing to pay" methodology cannot as a matter of basic economics determine a market price without considering the supply curve; in fact, it is "impossible" to do so as New GM's expert economist, Dr. List,

2

explains. Boedeker, in short, does not determine market price, does not determine what plaintiffs would have paid or how much they overpaid, and does not measure legally recognized damages. Plaintiffs' damages methodology and Boedeker's opinions simply do not "fit" the measure of damages required by law.

Fourth, Boedeker's methodology incorporates an economic "penalty" he decided is appropriate to impose upon New GM for its alleged "active deception" in failing to disclose the defects when each of the recalled vehicles was sold (new or used) or leased. But a methodology to calculate compensatory benefit-of-the-bargain economic loss damages may not include a penalty. Neither sound economics nor the law allows such a penalty. Significantly, Boedeker imposes such a penalty because otherwise, he admits, his damages methodology may very well come up with zero market-price damages.

Fifth, Boedeker's methodology and opinions are based on legally irrelevant and scientifically unreliable conjoint surveys. His surveys do not replicate actual marketplace conditions, nor are they conducted on a representative sample of putative class members.

Sixth, Boedeker's methodology is unsound not only in principle, but also in application. It suffers from an uncommonly large number of errors and mistakes, rendering it inherently unreliable and incoherent. Courts have excluded similar conjoint studies and opinions, including those offered by Boedeker, in the face of similar errors that taint the survey and "render it useless" for damages and class-certification purposes. *Townsend v. Monster Beverage Corp.*, 303 F. Supp. 3d 1010, 1049-50 (C.D. Cal. 2018); *Laumann v. Nat'l Hockey League*, 117 F. Supp. 3d 299, 309 (S.D.N.Y. 2015). This "junk science" should never see a courtroom. *Amorgianos v. Nat'l R.R. Passenger Corp.*, 303 F.3d 256, 266–67 (2d Cir. 2002).

Last, Boedeker is not a qualified expert—at least not in any of the fields in which he is

3

offering opinions. He has no doctorate—period—in any field. He has never published any peer-reviewed article or any article having anything to do with his opinions in this case. Moreover, although Boedeker claims to rely upon the published, peer-reviewed works of other recognized experts in various fields, these other experts have reviewed Boedeker's work in this case and have overwhelmingly condemned it, including: (i) Daniel McFadden, M.B.A., Ph.D., who won the Nobel Prize in Economics, and who Boedeker highlights as the author of peer-reviewed conjoint studies; (ii) Shari Diamond, Ph.D., the lead author of the "Reference Guide on Survey Research" in the *Federal Judicial Center's Reference Manual On Scientific Evidence*; (iii) Peter Rossi, M.B.A., Ph.D, who developed the Hierarchical Bayesian Choice-Based Conjoint Analysis method that Boedeker claims to use; (iv) John List, Ph.D., the Chairman of the University of Chicago's Department of Economics and former Senior Economist on President Obama's Council of Economic Advisors; and (v) Laurentius Marais, Ph.D., who holds a doctorate in mathematics and statistics and was a professor at Stanford University and the University of Chicago.

Consistent with settled law and economic and survey principles, these experts conclude that Boedeker's non-market-price and "penalty"-based damages methodology relies on concepts and principles that: (i) are not recognized in the field of economics, statistics, or survey design, (ii) improperly deviate from recognized economic principles, and (iii) result in unreliable, invalid, and nonsensical conclusions. As Dr. List puts it: Boedeker's novel methodology and opinions are inconsistent with "what I have taught for more than 25 years on the very first day of my Economics 101 course."

In sum, Boedeker's invented, novel damages methodology and opinions are "so flawed as to be completely unhelpful to the trier of fact," and do not pass muster under *Daubert* and Rule 702. They should be excluded for all purposes, and cannot serve as the basis to find class-wide

injury in fact, much less common class-wide damages.

BACKGROUND

A.   Plaintiffs' Benefit-of-the-Bargain Claims.

Plaintiffs contend that the "'gravamen of the benefit-of-the-bargain defect theory is that

Plaintiffs who purchased defective cars were injured when they purchased for *x* dollars a New GM

car that contained a latent defect; that had they known about the defect, they ***would have paid***

fewer than *x* dollars for the car (or not bought the car at all), because a car with a safety defect is

worth less than a car without a safety defect.'" Dkt. 5846 at 28 (quoting *In re Gen. Motors LLC*

Ignition Switch Litig., 2016 WL 3920353, at *7 (S.D.N.Y. July 15, 2016). Plaintiffs' primary

benefit-of-the-bargain expert Boedeker,[1] however, invented a penalty-based economic loss

methodology that is irreconcilable with benefit-of-the-bargain damages law and the claims

plaintiffs have advanced for years and upon which they rely to this day.

1. What Boedeker Was Required To Measure.

Plaintiffs' benefit-of-the-bargain claims depend on an alleged change in vehicle market

price at the time of sale purportedly caused by New GM's alleged concealment of defects in over

160 different model and model year vehicles subject to seven recalls. 5ACC ¶ 41; Ex. 32, 1st Rpt.

¶ 8.[2] Plaintiffs allege that, "[p]rovided with the truth regarding these vehicles," plaintiffs "would

not have purchased or leased their Old GM or New GM vehicles or their New GM Certified Pre-

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[1] Plaintiffs seek damages for both (i) benefit-of-the bargain damages; and (ii) "lost free time." This motion is directed at plaintiffs' purported benefit-of-the-bargain expert, Boedeker, who was supported in rebuttal by Dr. Gans. New GM is filing concurrently separate *Daubert*-Rule 702 Motions addressing the opinions and testimony of Dr. Gans.

[2] The following conventions are used in this brief: "Ex.   " refers to an Exhibit to the Declaration of A. Pixton, filed contemporaneously herewith; "1st Rpt." refers to Boedeker's 11/10/17 report; "2nd Rpt." refers to Boedeker's 5/18/18 report which was corrected on 6/27/18; "3rd Rpt." refers to Boedeker's 6/27/18 memo re estimated Bellwether state damages corrected on 7/5/18; "4th Rpt." refers to Boedeker's 8/31/18 report; "OCDA Rpt." refers to Boedeker's 4/13/17 report in the Orange County District Attorney litigation. Unless otherwise noted, deposition citations refer to Boedeker depositions ("[Date] Dep."). The other expert reports or depositions are cited as "[Date] [Expert] Rpt." and "[Date] [Expert] Dep."

Owned Vehicles and/or *would have paid less*." 5ACC ¶ 41.[3]

Lead Counsel tasked Boedeker with developing "an economic loss model to quantify the damages suffered by the class due to having purchased vehicles sold by General Motors that had undisclosed defects," 1st Rpt. ¶ 11, with respect to "plaintiffs' claims in the Bellwether States." Order No. 131 ¶ 6, Dkt. 4499. Boedeker was required to measure the market price that plaintiffs "would have paid" for vehicles if the defects had been disclosed. Dkt. 5846 at 28; *In re Gen. Motors LLC Ignition Switch Litig.*, 2018 WL 1638096, at *1 (S.D.N.Y. Apr. 3, 2018).

2. What Boedeker Actually Measured.

Boedeker's reports and depositions confirm that, instead of measuring the *market price* putative class members *would have paid* for their *vehicles* had a defect been disclosed, Boedeker measured what class members *would have been willing to pay* for *hypothetical safety scenarios* and risks. 1st Rpt. Fig. 19. Boedeker did not determine vehicle prices; instead he purports to have determined the "difference between…two demand curves for a given market share" for various safety "scenarios" which he then extrapolates—without any basis or reliable methodology—to "one numerical figure" reflecting the difference in vehicle price due to defect and other disclosures. *Id.* ¶¶ 116-119, 133. In addition, as part of determining the difference in willingness to pay for those scenarios, Boedeker includes a "penalty" imposed upon New GM for its allegedly "active deception." Ex. 27, 2nd Rpt. ¶ 16. Boedeker's opinions flow from the same multi-step process predicated on fundamentally-flawed conjoint surveys explained below. 1st Rpt. ¶¶ 118-121; 2nd Rpt. ¶¶ 719, 733; Ex. 124, OCDA Rpt. ¶¶ 143-144.

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[3] Unless otherwise noted, all emphases within quotations throughout this brief were added.

B.   Boedeker's Unscientific "Methodology."

Boedeker's purported methodology follows several steps.[4]

Step 1:   Boedeker hired a company to administer internet-based conjoint surveys instructing respondents to assume they already decided on what vehicle to purchase, and must now choose from add-on scenarios involving different combinations of attributes, including: (i) several arbitrarily-selected "safety features" (*e.g.*, "rear view camera"); (ii) "information revealed at the point of purchase" about a defect, recall, and harm (*e.g.*, "no recall required," "recall more than one year after the date of purchase," "defect may cause accidents with . . . fatalities and injuries"); and (iii) five arbitrarily selected prices: $500, $1000, $1500, $2000, and $2500.[5]

Step 2: Using commercial software applying "Hierarchical Bayesian Analysis," Boedeker estimates "utilities" (or "part-worths") reflecting each "consumer's subjective value" for each

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[4] *See generally* Ex. 29, 8/13/18 Rossi Rpt. ¶¶ 25-34; Ex. 30.B, 8/13/18 List Rpt. ¶¶ 24-25; Ex. 30.A, 2/23/18 List Rpt. ¶ 36.

[5] Boedeker abandoned the results from his original MDL conjoint. His current damages estimates are from: (i) his rebuttal conjoint for all recalls but the Delta Ignition Switch Recall (14v047); and (ii) as to 14v047, he used results from his conjoint in the now-settled Orange County District Attorney suit.

scenario component (*e.g.*, "rear view camera"). Boedeker then used these utilities to estimate the

probability that each respondent would purchase each of his hypothetical scenarios at each of his

five arbitrary price points ($500, $1000, $1500, $2000, $2500), compared to the alternative of not

purchasing the scenario. For example, Boedeker calculated a 36% probability that respondent

#2085 from the MDL survey would purchase a scenario including collision avoidance, blind-spot

warning, and rear-view camera, no recall, and pay a price for that of $500.

      Step 3: Using estimated probabilities of this kind for example, for all 2,872 MDL survey

respondents, the computer calculates their overall ***average*** (mean) probability of willingness to

pay for each arbitrarily assumed price for the same scenario. Ex. 34, 7/5/18 Dep. 277:5-10 ("Q:

[O]n Figure 19, as your example, we are getting the average probability across the respondents in

the survey that they would purchase the defect free package, correct, versus not at all? A. That's

correct.") For example, for the scenario in Step 2, the computer calculated a mean purchase

probability of 81.9% across all 2,872 respondents. Ex. 125, 7/5/18 Dep. Ex. 15 at 7.

      Step 4: Boedeker calculated similar average probabilities at each of his ***five*** arbitrary prices

with and without disclosure of defect/recall/harm information, to generate the ***ten*** dots used to

construct his "actual" and "but for" demand curves. The graphic below shows Figure 19 from

Boedeker's original MDL report, annotated to show that each dot is an average probability:

Figure 19: Demand Curves in the Actual-World and the But-For-World
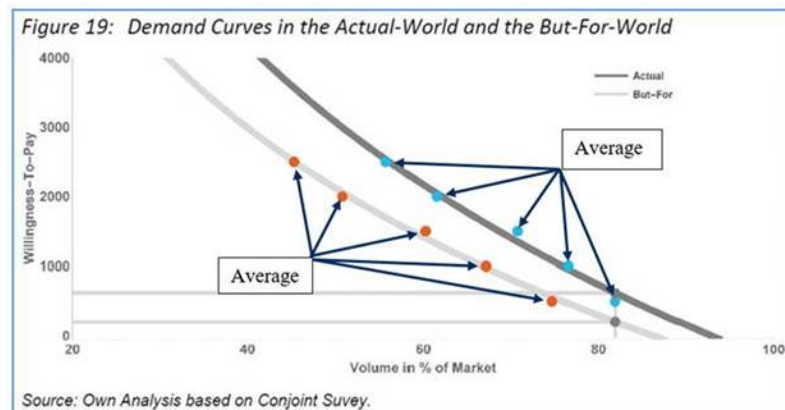
Step 5: Boedeker claims to measure "economic losses" by calculating the vertical distance between the two demand curves (with disclosure of a defect/recall/harm and with a defect-free disclosure) at each price point for each scenario. For example, New GM annotated the demand curves below from Boedeker's Figure 19, for a package including collision avoidance, lane departure warning, and rearview camera. The vertical difference reflects the decrease in willingness-to-pay required to hold constant the average probability that an otherwise identical scenario—one disclosed to be defect free, and the other with a disclosed defect/recall/harm— would be purchased among the sample of respondents. Boedeker claims this discount is a measure of economic loss.

Figure 19: Demand Curves in the Actual-World and the But-For-World
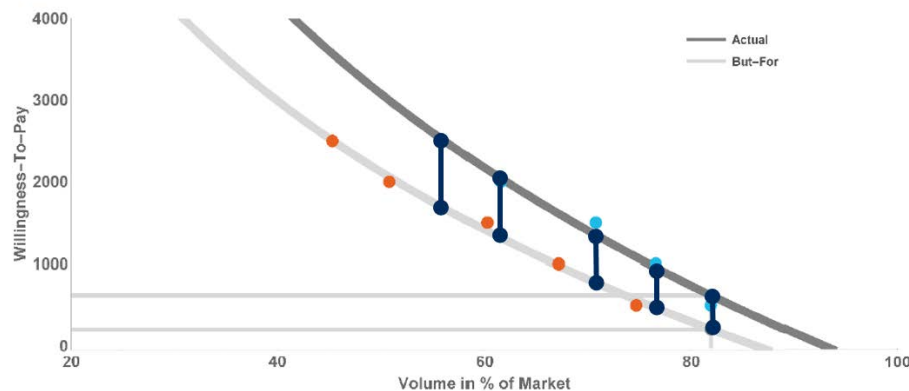
Step 6: For each defect and disclosure scenario, Boedeker then determined the "economic loss" for each of his five price points and for each of the eight[6] safety feature combinations in each survey, resulting in a total of forty economic loss estimates for each pair of actual and but-for scenarios (comprising eight sets of five vertical differences paralleling those shown in the figure

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[6] For example, Boedeker's original MDL survey scenarios included eight safety feature combinations: (1) collision avoidance system-yes; lane departure warning-yes; rearview camera-yes; (2) collision avoidance system-yes; lane departure warning-yes; rearview camera-no; (3) collision avoidance system-yes; lane departure warning-no; rearview camera-yes; (4) collision avoidance system-yes; lane departure warning-no; rearview camera-no; (5) collision avoidance system-no; lane departure warning-yes; rearview camera-yes; (6) collision avoidance system-no; lane departure warning-yes; rearview camera-no; (7) collision avoidance system- no; lane departure warning - no; rearview camera-yes; (8) collision avoidance system-no; lane departure warning-no; rearview camera-no.

above). Boedeker uses the median of these 40 numbers as his estimate of economic loss for each defect, recall, and harm scenario.[7] *E.g.* 1st Rpt. Figs. 20-22 at 45-46.

Step 7: Steps 1-6 above result in 62 different "median" estimates of economic loss across the two MDL and Orange County conjoints.[8] In his latest July 5, 2018 Report, Boedeker ignores many of these "medians." Instead, for the Delta Ignition Switch Recall, he used the highest median estimate from his Orange County conjoint. 3rd Rpt. ¶ 5. For non-Delta vehicles, he calculated medians of pooled sets of 120 individual loss estimates from his Second MDL conjoint where the "harm" was limited to "vehicle damage only" scenarios and pooled across three recall timing alternatives. *Id*. He multiplies these "median economic loss[es] per vehicle" by an estimated vehicle count for each recall to generate a lump-sum damage award for each state. *Id.* ¶ 1.

C. Boedeker's Multiple Conjoints Yield Divergent Results.

Boedeker's methodology resulted in wildly disparate damages estimates from three different conjoint analyses. In November 2017, Boedeker offered a nationwide economic loss damages estimate for this case ranging from $9.6-$17.2 billion. 1st Rpt. ¶ 135. In May 2018, he offered new opinions based on entirely different work, but using the same methodology, including: (1) a new conjoint survey conducted in May 2018; and (2) the revival of Boedeker's earlier April 2017 Orange County conjoint and expert opinions.[9] In July 2018, Boedeker relied on his new

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[7] The Orange County conjoint included 16 different safety features combinations resulting in 80 different economic losses for 8 recall timing/harm/probability of harm disclosure scenarios; the Rebuttal MDL conjoint included 9 recall timing/harm disclosure scenarios each with 40 different results. (8/13/18 List Rpt. ¶¶ 44-48.)

[8] These include different median estimates for: (i) the type of defect (*e.g.*, ignition switch v. power steering); (ii) recall timing scenarios (recall immediately, recall between one and two years, and recall more than two years); and (iii) harm scenarios (vehicle damage only, injuries but not fatalities, fatalities and injuries).

[9] 2nd Rpt. ¶¶ 703-36. Plaintiffs attempted to salvage Boedeker's opinions by proffering Professor Gans to bless Boedeker's theory as "conceptually appropriate" and to offer alternative damages calculations. Ex. 36, 7/28/18 Gans Rpt. ¶¶ 7, 49-57. But Dr. Gans' alternative calculations are based entirely on Boedeker's original MDL conjoint survey results and suffer from the same problems require exclusion of Boedeker's opinions. New GM's motion to exclude Dr. Gans under *Daubert* and Rule 702 is filed contemporaneously with this Motion.

work to estimate Bellwether state damages of $1.09 billion for California, $565 million for Missouri, and $1.68 billion for Texas. 3d Rpt. ¶ 5. In all, Boedeker calculated more than 20 entirely different "median" economic loss estimates for each recall ranging from $95.60 to $9,273.60 per vehicle—a 97 times difference in claimed economic losses per vehicle. 1st Rpt. ¶¶ 117-119; 2d Rpt. ¶¶ 718-719; OCDA Rpt. ¶ 144.

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LEGAL STANDARDS

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A.   Rule 702 And *Daubert*.

Under Rule 702 and *Daubert*, federal courts serve as gatekeepers to ensure that "any and all scientific testimony or evidence admitted is not only relevant, but reliable." 509 U.S. 579, 589 (1993). *Daubert* "applies not only to testimony based on 'scientific' knowledge, but also to testimony based on 'technical' and 'other specialized' knowledge." *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 141 (1999). The proffering party must show by a "preponderance of proof" that the expert satisfies each of the *Daubert* admissibility requirements. *Daubert*, 509 U.S. at 592 n.10.

To be relevant, the testimony must "help the trier of fact . . . to determine a fact in issue." Fed. R. Evid. 702(a). That is, the expert's opinion must be "sufficiently tied to the facts of the case that it will aid the [trier of fact] in resolving a factual dispute." *Daubert*, 509 U.S. at 591 (citations omitted); *see also id.* at 591–92. In addition, an expert's damage calculations must fit the damages permitted by law. *See Malletier v. Dooney & Burke, Inc.*, 525 F. Supp. 2d 558, 572 (S.D.N.Y. 2007) (excluding opinion where "study does not 'fit' with the substantive law").[10]

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[10] *See also Loeffel Steel Products, Inc. v. Delta Brands, Inc.,* 387 F. Supp. 2d 794 (N.D. Ill. 2005) (excluding damage expert who failed to calculate damages recognized by substantive law); *id.* at 806 ("Expert opinions that are contrary to law are inadmissible. They cannot be said to be scientific, to be reliable, or to be helpful to the trier of fact."); *Alexander v. Halliburton Energy Servs., Inc*, 2015 WL 4489185, at *1 (W.D. Okla. July 22, 2015) (excluding expert who calculated "value diminutions" rather than difference in "reasonable market value immediately after injuries" as required by Oklahoma law).

To be reliable, the testimony must be based upon "sufficient facts or data," and be "the product of reliable principles and methods" that have been "reliably" applied to the "facts of the case." Fed. R. Evid. 702 Advisory Committee's Notes (2000 Amendment); *Amorgianos*, 303 F.3d at 267. In other words, expert opinions must be "derived by the scientific method," "supported by appropriate validation—*i.e.*, 'good grounds,' based on what is known," and scientifically reliable—based on "more than subjective belief or unsupported speculation." *Daubert*, 509 U.S. at 590; *see also R.F.M.A.S., Inc. v. Mimi So*, 748 F. Supp. 2d 244, 248–49 (S.D.N.Y. 2010). Moreover, "*any* step that renders the analysis unreliable under the *Daubert factors renders the expert's testimony inadmissible*." *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 745 (3d Cir. 1994) (original emphasis); *Amorgianos*, 303 F.3d at 267.

B.   *Daubert* In The Class Certification Context.

Boedeker's opinions are inadmissible with respect to both liability and class certification issues. "When a motion to exclude expert testimony is made at the class certification stage, the *Daubert* standard applies, but the inquiry is limited to whether or not the [opinions] are admissible to establish the requirements of Rule 23." *Ge Dandong v. Pinnacle Perf. Ltd.*, 2013 WL 5658790, at *13 (S.D.N.Y. Oct. 17, 2013) (quotation and citation omitted); *see also Am. Honda Motor Co., Inc. v. Allen*, 600 F.3d 813, 815-16 (7th Cir. 2010) ("[W]hen an expert's report or testimony is critical to class certification" "a district court must conclusively rule on any challenge to the expert's qualifications or submissions prior to ruling on a class certification motion.") (internal citation omitted).[11] In the context of putative class certification experts like Boedeker, Rule 702's

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[11] Regardless of whether an expert "is sufficiently reliable and relevant to pass *Daubert* muster," each requirement of Rule 23 "must still be established by a preponderance of the evidence" and "to the extent that flaws in expert testimony proffered at class certification do not warrant that testimony's exclusion by the Court as gatekeeper under *Daubert* at the threshold, those flaws may nonetheless be considered in the Rule 23 analysis undertaken by the Court as trier of fact." *In re LIBOR-Based Fin. Instruments Antitrust Litig.*, 299 F. Supp. 3d 430, 471 (S.D.N.Y. 2018) (excluding causation and damages experts under *Daubert* for class certification).

fit and reliability prongs converge to require a reliable methodology of showing on a class-wide basis that class members were injured under legally cognizable theories. *See Weiner v. Snapple Beverage Corp.*, 2010 WL 3119452, at *7 (S.D.N.Y. Aug. 5, 2010) (excluding expert without methodology showing class-wide injury).

<center>**ARGUMENT AND AUTHORITIES**</center>

I.   BOEDEKER'S METHODOLOGY AND OPINIONS ARE BASED ON DEMONSTRABLY FLAWED AND INCORRECT ASSUMPTIONS.

It is black-letter law that proposed expert testimony must be supported by appropriate validation—*i.e.,* "'good grounds' based on what is known." *Daubert*, 509 U.S. at 590. "'[E]xpert testimony should be excluded if it is speculative or conjectural, or if it is based on assumptions that are so unrealistic and contradictory as to suggest bad faith.'" *In re Gen. Motors LLC*, 2017 WL 6729295, at *6 (S.D.N.Y. Dec. 28, 2017) (quoting *Boucher v. U.S. Suzuki Motor Corp.*, 73 F.3d 18, 21 (2d Cir. 1996)).[12]   Moreover, an expert's opinions "connected to the analyses he actually performed and the existing data … 'only by the *ipse dixit* of the expert'" are inadmissible. *In re Gen. Motors LLC Ignition Switch Litig.*, 2017 WL 6729295, at *7 (S.D.N.Y. Dec. 28, 2017); *see also Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997) (expert testimony should be excluded

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[12] *See also Macaluso v. Herman Miller, Inc.*, 2005 WL 563169, at *8 (S.D.N.Y. Mar. 10, 2005) (excluding expert's opinions where "incorrect factual assumptions" rendered "all of his subsequent conclusions purely speculative"); *Davidov v. Lousiville Ladder Grp., LLC*, 2005 WL 486734, at *1 (S.D.N.Y. Mar. 1, 2005) (excluding expert opinion as speculative where "an essential element of his theory is contradicted by the evidence in the case"), *aff'd* 169 Fed. App'x 661 (2d Cir. 2006); *Dora Homes, Inc. v. Epperson*, 344 F. Supp. 2d 875, 888-89 (E.D.N.Y. 2004) (excluding expert opinion that was "in opposition to the well-documented facts"); *Mink Mart, Inc. v. Reliance Ins. Co.*, 65 F. Supp. 2d 176, 180 (S.D.N.Y. 1999) (excluding expert opinions as speculative where theory was contradicted by the factual record and therefore not "grounded on verifiable propositions of fact"); *Langley v. Coughlin*, 715 F. Supp. 522, 541 (S.D.N.Y. 1989) ("If an expert's opinions rest on pure speculation or are directly contradicted by the factual record or are otherwise unworthy of even arguable belief, they may be rejected."); *Smith v. Target Corp.*, 2012 WL 5876599, at *10 (N.D.N.Y. Nov. 20, 2012) (excluding expert opinion that was based on "incorrect factual assumptions that are not in evidence"); *Barrett v. Black & Decker (U.S.) Inc.*, 2008 WL 5170200, at *8 (S.D.N.Y. Dec. 9, 2008) ("[T]he undisputed factual disconnect between Mr. Clauser's and Plaintiff's versions of the accident at issue is reason enough to preclude Mr. Clauser's expert testimony."); *Bakst v. Cmty. Mem'l Health Sys., Inc.*, 2011 WL 13214315, at *20 (C.D. Cal. Mar. 7, 2011) ("because Wunderlich's damages calculation is based on factual assumptions that are entirely unsupported in the record, it fails to meet the second prong of *Daubert*").

<center>13</center>

where there is "too great an analytical gap" between the expert's data and analysis and his conclusions). This is because "pure speculation, untethered to the facts in the record, is not a proper basis for reliable scientific testimony." *See In re Gen. Motors*, 2017 WL 6729295, at *9 (citing *Daubert*, 509 U.S. at 590); *Macaluso v. Herman Miller, Inc.*, 2005 WL 563169, at *8 (S.D.N.Y. Mar. 10, 2005) (excluding opinions "based on incorrect factual assumptions that render all of [the expert's] subsequent conclusions purely speculative"). Boedeker's methodology and penalty-based theory violate this black-letter law.

A.   The Vehicle Price Assumption.

1.   Boedeker Measures Demand For Hypothetical "Scenarios," Not Vehicles.

Plaintiffs allege they overpaid for *vehicles*, but Boedeker did not study or analyze prices of "vehicles"—much less the difference between the actual GM vehicle prices consumers paid as compared to what vehicle prices they would have paid in the but-for world. He instead analyzed survey respondents' demand for alternative "scenarios" comprised of three arbitrary safety features, three alternative disclosure and recall timing and risk assumptions, and five alternative made-up prices. Yet Boedeker does not reliably connect these scenarios to (a) at-issue GM vehicle prices actually paid or (b) vehicle purchase prices or lease terms that plaintiffs would have paid in the but-for world. "[A]ctual purchase decisions involve multiple tradeoffs between features of a car (*e.g.*, brand name, design, size of engine, trim level, safety features, etc.)." 2/23/18 List Rpt. ¶ 97. "[T]here is no economic basis to conclude that the valuation of safety features is independent of other vehicle features," *id.* ¶¶ 98-99, much less that it has anything to do with the price of the vehicle. *See* Ex. 26, 2/23/18 Jason Rpt. ¶ 12; Ex. 42, 2/23/18 McFadden Rpt. ¶ 37; Ex. 42, 8/13/18 McFadden Rpt. re Boedeker ¶16; 8/14/18 Marais Rpt. ¶¶ 21-26. Accurate attribute selection is required. As Dr. List explains:

> In terms of conjoint analysis, this boils down to a question about which attributes must be specified in the choice set to generate reliable estimates of the features of interest. The literature on conjoint analysis recognizes that omission of important product attributes from the analysis can yield unreliable estimates of valuations for included product attributes. Continuing the above example, failure to specify the size of the car as a product characteristic presented to respondents in the conjoint can lead to distorted estimates of the value of safety features.

2/23/18 List Rpt. ¶ 99. The same literature upon which Boedeker relies confirms that the "selection of attributes and levels is a very crucial step in the design of conjoint studies"[13] and that "[d]efining proper attributes and levels is arguably the most fundamental and critical aspect of designing a good conjoint study."[14] These academic sources explain further that the "scientific aspects" of attribute selection require identifying the "salient attributes involved in the choice of an alternative by a majority of target consumers."[15] The axiom "garbage in, garbage out" applies to developing reliable conjoint surveys.[16] Indeed, one of Boedeker's survey respondents identified this very issue in explaining his confusion with the survey: "Am I buying an SUV or a compact car? The safety feature importance and what I would pay varies based on that. For an SUV I would not buy without a backup camera, but I don't need that on a smart car."[17]

Boedeker's arbitrary attribute selection violated these sound and generally accepted conjoint survey requirements. Importantly, there is no dispute that he did not attempt to calculate vehicle prices or demand curves for vehicles. 7/6/18 Dep. 427:12-15 ("Q: And in your conjoint you don't offer the whole price of a vehicle at all. You're offering a price of an option package,

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[13] Ex. 127, Vithala Rao, *Applied Conjoint Analysis*, at 43; *see also* 1st Rpt. ¶¶ 28-29 (citing Rao).

[14] Ex. 128, Bryan K. Orme, *Getting Started with Conjoint Analysis* 3rd Ed., 53 (2014); *see* 1st Rpt. ¶ 28 (citing Orme).

[15] Rao at 43. Dr. Rao further explains that this must be done by referencing "information available from a previous consumer survey"; "[e]xternal sources such as Consumer Reports" and the "list of attributes used in their evaluations of the product category"; or conducting a "primary study among a small sample of consumers." *Id.*

[16] Ex. 129, 6/28/18 Gans Dep. Ex. 19, Hensher, et al., Applied Choice Analysis, at 201.

[17] Ex. 130, Respondent #1831 Comment, TotalCAMOTX110717.

correct?   A.   Yeah.").[18]   Instead, Boedeker purports to calculate demand curves only for hypothetical safety option "scenarios."   *Id.*   For example, although his First MDL Conjoint included 3 safety features, Boedeker failed to "undertake any study to figure out . . . what safety features consumers considered to be important to their decision making."   4/20/17 Dep. 203:2-6. Boedeker argues that the sole purpose of these safety features was to "to help disguise the fact" that the focus of the survey was defect preferences.[19]   1st Rpt. ¶ 93; 2nd Rpt. ¶ 657.

Ultimately, Boedeker assumes that the difference in purported willingness-to-pay for hypothetical safety-option scenarios, with and without defect, is the same as the difference in prices consumers would have paid for entire vehicles.   1st Rpt. ¶ 52 (opining on economic loss for "vehicles").   Boedeker did *no testing* to confirm whether the difference in *willingness-to-pay he derives from hypothetical scenarios* has anything to do with *the prices of "vehicles,"* much less the difference in relevant GM vehicle market prices in the actual and but-for worlds.[20]   Instead, Boedeker's opinions regarding the impact of defect, recall timing, and harm disclosures on *vehicle* prices "are, at bottom, connected to the analyses he actually performed and the existing data… 'only by the *ipse dixit* of the expert.'"   *In re Gen. Motors LLC*, 2017 WL 6729295, at *8.   Dr. Gans—plaintiffs' rebuttal expert proffered to salvage Boedeker's opinions—confirms the

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[18] *See also* 6/28/18 Gans Dep. 316:5-8; 10-12 (agreeing that Boedeker estimates "demand for various scenarios with safety packages, not demand for vehicles").

[19] Indeed, Boedeker did not determine whether the safety features were actually available as add-on options in any or all of the class members' subject vehicles.   2/6/18 Dep. 109:10-14; 111:6-16.

[20] *See* Ex.131, 2/23/18 Rossi Rpt. ¶19 ("[T]he most important [survey] defect is nowhere is the survey respondent asked about how recalls would affect their decision to purchase vehicle or the price they might be willing to pay for vehicles with defects."); 8/13/18 Rossi Rpt. ¶¶ 4-5 (similar); 2/23/18 McFadden Rpt. ¶ 37 (Boedeker's conjoint "does not allow him to estimate demand for New GM vehicles but instead focused on a bundle of safety options."); 2/23/18 McFadden Rpt. ¶ 16; 2/23/18 Marais Rpt. § III.C, ¶ 17, 30 ("Mr. Boedeker's purported calculation of damages rests on a crucial implicit assumption . . . that the dollar amount of disclosure-related demand shifts for packages of safety options will be equal to corresponding demand shifts for entire vehicles equipped with those packages. . . . He nowhere states or justifies his implicit assumption—or proves mathematically—that a shift in the demand curve for this **hypothetical bundle of features** and disclosures as measured by his CBC analysis will mimic the corresponding shift in demand for the **entire vehicle** to which the bundle pertains."); *see also* 6/27/18 Gans Dep. 325:14-17 (has not done analysis to "confirm whether the difference in demand curves attributes actually translates to vehicles").

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unreliability of extrapolating from arbitrarily selected features to vehicle price:

> Consider the case of peanut butter sandwiches and just peanut butter. The difference between those two products is, obviously, bread. No one would suggest, though, that subtracting the demand curve for peanut butter from the demand curve for peanut butter sandwiches would yield the demand curve for bread . . . ***The fact is that when peanut butter and bread are combined to form a peanut butter sandwich the resulting combination reflects a different set of economic factors than those embodied by its constituent parts***.

8/31/18 Gans Rpt. ¶ 26 (internal citations omitted). In sum, Boedeker assumes that willingness to pay for his arbitrary hypothetical scenarios offered at made-up prices can be extrapolated to determine vehicle prices—an assumption contrary to survey science, based simply upon his own *ipse dixit*, and precisely what Dr. Gans explains is economically incorrect. *See* Ex. 116,, 8/13/18 McFadden Rpt. re Gans ¶ 16

2.   Boedeker's Incorrect Vehicle Price Assumption And Arbitrary Exclusion Of Salient Vehicle Features Require Exclusion.

Boedeker "eschew[ed] real-world options," included only a few safety-related vehicle features in his made-up scenarios, and also failed to include in his survey "salient attributes" that determine consumer purchases of ***vehicles***. 2nd Rpt. ¶ 657. "[T]here are numerous other vehicle features that were offered for the vehicles at issue but were omitted from his surveys." Jason Rpt. 7. The omitted features include brand, price, color, size, and designs, among others, *id.* at 9-10, yet Boedeker's surveys include none of these features.   None of the 96 deposed named plaintiffs mentioned any of Boedeker's arbitrary survey features as a reason for their purchase or lease decisions.

The survey design choices were divorced from reality, and biased "towards safety-related features when in fact there are numerous other vehicle features that were offered for the vehicles at issue but were omitted from his surveys." *Id.* at 7. By designing "a highly flawed choice task that does not resemble any actual vehicle purchase scenario," Boedeker's method "leads

respondents to place an overstated importance on the challenged claim." 2/23/18 McFadden Rpt. ¶ 58; 8/13/18 McFadden Rpt. re Boedeker ¶ 17 & App. C ¶¶ 16, 32.

In the conjoint-survey context, courts exclude opinions based on surveys that ignore realistic attributes that impact value and price. For example, a federal court recently excluded Boedeker's conjoint-based damages methodology and denied class certification because his conjoint suffered from "focalism bias, rendering it useless for the purpose of determining price premiums attributable to the challenged statements" at issue in that case. *See Townsend*, 303 F. Supp. 3d at 1049. There, Boedeker selected 16 attributes and purported to assess their impact on purchase decisions, but "failed to justify adequately [his] attribute selection for the conjoint analysis or illustrate how the price premium determination is reliable." *Id.* at 1050. That is precisely what Boedeker did here. 2/6/18 Dep. 109:10-14 ("How did you come up with the decision to include those [collision avoidance and lane departure warning systems, and rear view camera] features as part of your survey? A: Those are just like available safety features. ***I don't recall that I did any particular research into those three***.").

Townsend is consistent with settled law. In *Oracle Am., Inc. v. Google Inc.*, for example, the court rejected a conjoint-based methodology as "unreliable because the features selected to be surveyed, only seven in total, were purposely few in number and omitted important features that would have played an important role in real-world consumers' preferences." 2012 WL 850705, at *10 (N.D. Cal. Mar. 13, 2012).[21] The Court held that the expert's conjoint analysis impermissibly

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[21] *See also Sunlight Saunas, Inc. v. Sundance Sauna, Inc.,* 427 F. Supp. 2d 1022 (D. Kan. 2006) (excluding economic expert who did not take into account significant factors, aside from the defendants' conduct, which could have explained the decline in the growth of the plaintiff's sales; and the record contained "no data on market share, no market research and no evidence that, absent wrongful conduct by defendants, plaintiff's sales would have increased" where plaintiff failed to present evidence that a reasonable economist would assume those facts); *Herman Schwabe, Inc. v. United Shoe Machinery Corp.,* 297 F.2d 906, 911 (2d Cir. 1962) (affirming exclusion of economist's damage evidence where no basis for assumption established), *cert. denied,* 369 U.S. 865 (1962); *Cochrane v. Schneider Nat. Carriers, Inc.,* 980 F. Supp. 374 (D. Kan. 1997) (excluding expert loss estimates based on unjustified assumptions); *In re Aluminum Phosphide Antitrust Litigation,* 893 F. Supp. 1497, 1507 (D. Kan. 1995) (similar);

focused on only seven smartphone features, excluding other "important product features, such as battery life, WiFi, weight, and cellular network, all of which were not covered by patented functionalities," and replacing those features with "an arguably unimportant feature, voice dialing." *Id.* at *9-10.   Moreover, the expert "had no reasonable criteria for choosing the four non-patented features to test."   *Id.* at *10.   Boedeker's methodology here likewise "inappropriately focused consumers on artificially-selected features and did not reliably determine real-world behavior."   *Id.* at *11.   Boedeker did not attempt to select features relevant to the product being studied—vehicles—but only scenarios of a few safety features—some of which were either standard features (and thus came with a vehicle at no increased costs) and others which were not available for these vehicles.   2/6/18 Dep. 109:10-14; 111:6-16; 2/23/18 Jason Rpt. at 7, 11, Ex. B, at 4-20.

Similarly, in *In re Fluidmaster,* the court excluded a proposed conjoint analysis that arbitrarily selected survey attributes, finding that "[b]y selecting these four non-price attributes ***without determining if they play an important role in real-world consumers' preferences***, [the] survey potentially elevates the two attributes linked to Plaintiffs' damages claims and inflates respondents' [willingness to pay] estimates for these attributes."   2017 WL 1196990 at **31, 63. Like in *Fluidmaster*, plaintiffs have not met their "burden to show why the expert's selection of certain attributes makes her methodology reliable."   *Id.* at *31 n. 28.   Boedeker's conjoint surveys should be excluded.   *See Visteon Glob. Techs., Inc. v. Garmin Int'l, Inc.,* 2016 WL 5956325, at *6 (E.D. Mich. Oct. 14, 2016) (excluding conjoint survey results that "express nothing about the value of the four patented features relative to other important features of the accused devices.").[22]

Communications Co. v. American Tel. & Tel. Co., 556 F. Supp. 825, 1075-76 (D. D.C. 1982) (damage model based on unreasonable and speculative assumptions not sufficient to support just and reasonable approximation of damages).

[22] In addition, highlighting of safety features, while excluding other salient features, creates experimenter demand effects, further structurally biasing and dooming the reliability of his surveys. *See Sears, Roebuck & Co. v. Menard,*

3. The Irrational Survey Results Underscore The Many Flaws In Boedeker's Surveys.

The collective impact of Boedeker's erroneous assumptions, unprincipled feature selection, and other methodological flaws, is not theoretical or academic. His data show over **95%** *of* respondents in all three surveys have at least one "subjective value" that is inconsistent with rational economic behavior, such as preferring: higher prices to lower prices, a vehicle with a defect to one without, a recall as compared to no recall, a later recall as compared to an earlier recall, a greater risk of injury to lesser risk of injury and, incredibly, the risk of death over the risk of only property damage to the vehicle.[23]   In addition, reliability analyses show that for each scenario, over 26% of First & Second MDL respondents are willing to pay *more* for the scenario with the defect than a scenario without one.[24]   Further reliability analyses show that Boedeker's methods applied to Boedeker's survey data yield the economically nonsensical result of a multitude of upward-sloping demand curves for individual features indicating that consumers would be willing to buy *more* of those features when the price is *higher.*[25]

As in *Oracle*, one "likely explanation for this irrational result is that survey respondents were not holding non-specified features constant and instead placing implicit attributes on features" arbitrarily selected. 2012 WL 850705, at *11. Although *Daubert* instructs courts to

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Inc., 2003 WL 168642, at *2 (N.D. Ill. Jan. 24, 2003) (excluding expert because, *inter alia*, survey included leading questions that focused consumers on specific phrase that created demand effect); *MPS Entm't, LLC v. Abercrombie & Fitch Stores, Inc.*, 2013 WL 3288039, at *11 (S.D. Fla. June 28, 2013) ("A survey question that begs its answer by suggesting a link between plaintiff and defendant cannot be a true indicator of the likelihood of consumer confusion") (citing *Universal City Studios, Inc. v. Nintendo Co.*, 746 F.2d 112, 118 (2d Cir. 1984); *Scott Fetzer Co. v. House of Vacuums Inc.*, 381 F.3d 477, 488 (5th Cir. 2004)).   *See also* 2/23/18 List Rpt. ¶¶ 83-85; 2/23/18 Rossi Rpt. ¶¶ 20-23.

[23] 2/23/18 Rossi Rpt. ¶¶ 34-36; 8/13/18 Rossi Rpt. ¶ 17, App. A at 17-18; ; Ex. 29, Rossi OCDA Rpt. at 19; 2/23/18 List Rpt. ¶¶ 52-60; 8/13/18 List Rpt. ¶¶ 32-33 & App. Table 2.1, 2.2, 2.3, 2.4.

[24] 2/23/18 List Rpt. ¶¶ 113-119; 8/13/18 List Rpt. ¶¶ 56-57, App. 5-6; 2/23/18 Rossi Rpt. ¶¶ 38-43 & App. E; 8/13/18 Rossi Rpt. ¶¶ 8-9, 20-24,

[25] 8/14/18 Marais Rpt. Sec. ¶¶ 46-55, App. A, D.2, F Addendum. Further, a reliability test of Boedeker's OCDA Conjoint showed similar results regardless of the magnitude of risk, *e.g.* whether risk was 1 in 100,000 or 1 in 10 million. (8/13/18 List Rpt. App. 1 ¶ 6.A-F)

focus "on [the] principles and methodology" employed by the expert and "not on the conclusions that they generate," *Daubert*, 509 U.S. at 595, "methodology and results are not entirely distinct from one another." *In re LIBOR.*, 299 F. Supp. 3d at 501 (internal citations and quotations omitted). This is especially true where, as here, Boedeker's "results" are the only inputs into the next step in his methodology. *Amorgianos*, 303 F.3d at 266–68.[26]

In *Laumann*, for example, Judge Scheindlin excluded as unreliable the demand portion of a damages model related to sports-broadcasting bundling packages where the results of the study were illogical. In that case, "the fans classified as 'single-team fans'-- the ones primarily interested in watching one and only one team -- are the *most likely* to purchase the league package, and the *least likely* to purchase an a la carte channel," while "the fans most likely to purchase an a la carte channel are those that are interested in the greatest number of teams." 117 F. Supp. 3d at 310 (original emphasis). Like the Boedeker survey and methodology results, "this distribution of results makes no sense: the more teams a fan is interested in watching, the more likely he would be to buy a package of the telecasts of *all* teams instead of the telecast of *only one* team." *Id.* at 318. Where, as here, the expert had "no real world data" to support or explain these absurd results, the unreliable methodology "cannot demonstrate with any precision the monetary damages class members incurred," and the opinions must be excluded. *Id.* at 320.

B.   The Defect-Free Vehicle Assumption.

Another fundamental methodological error is Boedeker's explicit "assumption" that consumers "paid for the vehicle [at the point of sale] with the expectation to receive a vehicle without defects." 2/6/18 Dep. 91:10-92-8. This "defect-free" assumption is essential to

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[26] *Amorgianos*, 303 F.3d at 266–68 ("[A]ny step that renders the analysis unreliable under the *Daubert* factors renders the expert's testimony inadmissible…In deciding whether a step in an expert's analysis is unreliable, the district court should undertake a rigorous examination of the facts on which the expert relies.").

Boedeker's conjoint methodology. For example, one of Boedeker's survey "scenarios" includes the following information: "Safety feature recall expected by experts? . . . No, no recall needed, *vehicle is safe as is*. . ." OCDA Dep. Ex. 4, OCDA Survey Screenshots _2, at 25 (emphasis added); *see also* 1st Rpt. ¶ 106 ("A purchaser of a vehicle with one of the non-disclosed defects alleged in the Complaint, actually paid for the vehicle with the expectation to receive a vehicle *without defects*."); 2nd Rpt. ¶ 103 ("buyers were led to believe they had received . . . a particular *defect-free GM vehicle*"); *id.* ¶ 552 ("Plaintiffs' theory of damages is that consumers were *denied the benefit of a defect-free vehicle* from the time of the purchase to the time of availability of the repair associated with the recall").[27] Boedeker uses this defect-free assumption to generate his purported "actual" world demand curves and includes only defect-free scenarios in "but for" world demand curves. 1st Rpt. ¶ 22 ("If the demand curve shifts downward because the vehicle with [the] defect is less desirable to consumers, then all 6 purchasers suffered an economic loss because when they purchased the vehicle with the undisclosed defect *they assumed that they purchased a vehicle without a defect*.").

Boedeker's opinion that "non-disclosure of defects *caused* class members to overpay for their vehicles" is entirely dependent upon this defect-free assumption. 1st Rpt. ¶ 22. But his defect-free vehicle assumption is unsupported *and* demonstrably incorrect.

First, the "defect-free" assumption is untested. Boedeker admits that he has "not done any separate studies that would test specifically consumers' perceptions of defects or recalls." 2/6/18 Dep. 99:4-17. Nor has he cited any other data, testing, or publications in support of his defect-free assumption. *See generally* 1st, 2nd & 3rd Rpts. Instead, Boedeker proclaims that consumer

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[27] *See also* 6/27/18 Gans Dep. 328:5-12 (Boedeker "was estimating changes in demand that were associated with putting to consumers that they were getting a *defect-free vehicle* versus knowingly getting a vehicle with defects. That's how the survey was described and I believe that is relevant information properly used for this case.").

expectations about recall frequency "is irrelevant to my study." 2nd Rpt. ¶ 378. As Dr. Rossi

observes, "it is not known whether class members believe their vehicles were defect-free and,

therefore, would not be subject to recall." 2/23/18 Rossi Rpt. ¶ 44.

Boedeker's opinions should be excluded because they are based on an "unexplained

assumption" that "lack[s] *any* basis in the record." *Stewart v. Estate of Sugar Hill Music Pub. Ltd.,*

2013 WL 1405422, at *1 (S.D.N.Y. Apr. 8, 2013).[28] As this Court recognized, reliance on such

an assumption is not the "scientific method at work; instead, it reveals Plaintiffs' experts to be

reverse-engineering a theory to fit the desired outcome." *In re Gen. Motors LLC Ignition Switch*

Litig., 2017 WL 6729295, at *8 (S.D.N.Y. Dec. 28, 2017).

Second, Boedeker's "defect-free" assumption is not just "unexplained" but is contrary to

real-world data showing that vehicle safety recalls are commonplace. Between 1997 and 2013, an

average of more than 432 motor vehicle safety recalls were issued each year covering more than

an average of 15.9 million vehicles per year.[29] Over 80% of automobiles in service in the U.S.

between 1996-2017 have been subject to at least one recall.[30] Further, the "recall rate across all

manufacturers was 1,115 recalls per 1,000 vehicles sold over the three decades period from 1985

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[28] *See Davis v. Carroll,* 937 F. Supp. 2d 390, 418–19 (S.D.N.Y. 2013); *Barrows v. Forest Labs., Inc.*, 742 F.2d 54, 60 (2d Cir. 1984) ("A claim for benefit-of-the-bargain damages must be based on the bargain that was actually struck, not on a bargain whose terms must be supplied by hypotheses about what the parties would have done if the circumstances surrounding their transaction had been different."); *Thiedemann v. Mercedes-Benz USA, LLC,* 872 A.2d 783, 794 (N.J. 2005) ("Defects can, and do, arise with complex instrumentalities such as automobiles. The mere fact that an automobile defect arises does not establish, in and of itself, an actual and ascertainable loss to the vehicle purchaser"); *Dabush v. Mercedes-Benz USA, LLC*, 874 A.2d 1110, 1120–21 (N.J. App. 2005) ("Plaintiff's loss must rest upon an objectively reasonable basis. The navigation system is exactly what it was designed and intended to be; an aid to navigation, not a perfect instrumentality of navigation. A reasonable consumer would expect no more, namely, a device that directs the driver to most destinations most of the time.").

[29] *See* NHTSA, Vehicle Recall Summary by Year, available at
https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/annualvehiclerecallssince1996.pdf (accessed 5/11/18).

[30] NHTSA/ODI Recall Database (https://www-odi nhtsa.dot.gov/downloads file: FLAT_RCL.zip), accessed 1/1/18, and Polk NVPP 1997-2017). The rate of recalls of model year 1997-2017 GM models in 1996-2017 (approximately 84%) was indistinguishable from that of U.S. non-GM models (approximately 85%), and comparable to that of other non-GM models (approximately 80%). 2/23/18 Marais Rpt. ¶ 6.

to 2016 (i.e., an average of more than one recall per vehicle sold)." Ex. 21, 2/23/18 Cornell Rpt. ¶ 19. Indeed, given these well known facts it is not surprising that the vast majority of purported class representative plaintiffs *in this case* testified at deposition that they were aware at the time of purchase that their cars (like any other car) could be subject to a recall.[31] Boedeker, however, did not consider this data or testimony (or any other data or testimony from the actual plaintiffs in this case); he simply assumed the counter-factual position that vehicle purchasers expected to purchase defect-free vehicles. 2/7/18 Dep. 483:1-13.[32]

In sum, Boedeker's flawed defect-free assumption "is too significant to overlook under *Daubert* and Rule 702." *Medisim Ltd. v. BestMed LLC*, 861 F. Supp. 2d 158, 180 (S.D.N.Y. 2012) (excluding report in its entirety where based on survey with two fundamental flaws).[33]

II.   BOEDEKER DOES NOT RELIABLY MEASURE RELEVANT MARKET-PRICE DAMAGES.

A.   Boedeker Did Not Calculate Vehicle Market Prices.

Plaintiffs claim benefit-of-the-bargain damages as measured by an alleged difference in the market price paid for their vehicles at the time of the sale versus what they should have paid had the defects been disclosed. But Boedeker's methodology does not determine *vehicle market prices*

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[31] *See, e.g.,* Ex. 47, 3/9/17 S. Orosco Dep. at 89:9-90:1; Ex. 48, 3/23/17 B. Akers Dep. at 70:24- 71:5; Ex. 49, 5/9/17 K. Robinson Dep. at 61:8-11; Ex. 50, 3/21/17 R. Robinson Dep. at 64:21-25; Ex. 51, 4/14/17 M. Stefano Dep. at 80:20-81:12; Ex. 52, 4/13/17 C. Tinen Dep. at 91:14-92:6; Ex. 53, 5/31/17 P. Witherspoon Dep. at 114:10-115:2; Ex. 16, 5/5/17 G. Al-ghamdi Dep. at 44:1:4, 9-13; Ex. 18, 5/1/17 M. Graciano Dep. at 110:24-111:13.

[32] Boedeker's defect-free assumption is also inconsistent with the express disclosures made by New GM (or Old GM) in Owner Manuals, each of which referenced the possibility of safety-related defects. For example, the MY 2010 Cobalt owner manual states at section 8-15: "If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying General Motors. If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign." Ex. 133. Express warranties explicitly contemplate defects might exist. Warranty booklets disclose the possibility of defects. For example, the MY 2006 Cobalt warranty booklet states at page 4: "The warranty covers repairs to correct any vehicle defect related to materials or workmanship occurring during the warranty period." Ex. 134. Boedeker ignored these facts, wrongly assuming that customers expect that GM promised a "defect free" vehicle.

[33] *Aff'd on reconsideration in part*, 2012 WL 1450420 (S.D.N.Y. Apr. 23, 2012).

at all, much less a difference between the actual vehicle prices and the should-have-been vehicle market prices, rendering his opinions unreliable, irrelevant, and inadmissible.

1. Benefit-Of-The-Bargain Damages Measure Market-Price Differences.

"Benefit-of-the-bargain" damages in the three Bellwether states (and elsewhere) are defined as the difference between the price paid and the market price that plaintiffs would have paid had the defect information been disclosed. Benefit-of-the-bargain damages under the California Unfair Competition Law ("UCL") and the Consumer Legal Remedies Act ("CLRA") are "determined by taking the difference between the market price actually paid by consumers and the true market price that reflects the impact of the unlawful, unfair, or fraudulent business practices."[34] Benefit-of-the-bargain damages under the Missouri Merchandising Practices Act are likewise measured by the difference between the price paid and the "fair market value" of the product in its defective condition.[35] Under the Texas Deceptive Trade Practices Act ("DTPA"), "in order to sustain such a finding of damages, there must be evidence of both the actual amount paid by the buyer and the actual market value of the car as received in its defective condition."[36]

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[34] *In re NJOY, Inc. Consumer Class Action Litig.*, 120 F. Supp. 3d 1050, 1118, 1120-22 (C.D. Cal. 2015); *see also Werdebaugh v. Blue Diamond Growers*, 2014 WL 7148923, at *8 (N.D. Cal. Dec. 15, 2014) (under UCL and CLRA "[r]estitution is then determined by taking the difference between the market price actually paid by consumers and the true market price that reflects the impact of the unlawful, unfair, or fraudulent business practices."); *Astiana v. Ben & Jerry's Homemade, Inc.*, 2014 WL 60097, at *12 (N.D. Cal. Jan. 7, 2014) ("Plaintiff has not offered any expert testimony demonstrating that the market price of Ben & Jerry's ice cream with the 'all natural' designation was higher than the market price of Ben & Jerry's without the 'all natural designation. Thus, by definition, there is no evidence showing how much higher the price of one was than the other."); *Bagdasarian v. Gragnon,* 192 P.2d 935, 940-41 (Cal. 1948) (defining "actual value" as "market value" under California compensatory damages statute).

[35] *Larabee v. Eichler*, 271 S.W.3d 542, 548 (Mo. 2008) (benefit of the bargain damages are measured as "the difference between the *fair market value* of the property received and the value if the property had been as represented…at the time of the transaction" where "contract price is strong evidence of the value of the property if it had been as represented"); *see also Smith v. Tracy*, 372 S.W.2d 925, 938–39 (Mo. 1963); *In re Davenport*, 491 B.R. 911, 921 (Bankr. W.D. Mo. 2013).

[36] *Town E. Ford Sales, Inc. v. Gray*, 730 S.W.2d 796, 801-03 (Tex. App. 1987) (reversing damages under the DTPA where evidence of "*market value*" was determined at the time of trial rather than "the time it was received in its defective condition"); *see also Matheus v. Sasser*, 164 S.W.3d 453, 462 (Tex. App. 2005) ("Under either the benefit-of-the-bargain or the out-of-pocket measure of damages, the plaintiff is also required to prove the *fair market value* of the item as received."); *GJP, Inc. v. Ghosh*, 251 S.W.3d 854, 888-89 (Tex. App. 2008) (benefit-of-the-bargain damages for defective vehicle is difference between the price paid and the market value of defective vehicle).

Other courts and commentators agree that the "benefit-of-the-bargain measure" of is "based on market value." Dobbs, Hayden & Bublick, *The Law of Torts* § 689 (2d ed.).[37]

Recognizing this settled law, plaintiffs have repeatedly defined benefit-of-the-bargain damages in terms of "market price" and "market value," alleging that "the defects that New GM concealed throughout the Class Period related to the safety and reliability of the Defective Vehicles, and affected the brand perception and ***market value*** of all Defective Vehicles. Provided with the truth regarding these vehicles, plaintiffs claim that putative class members "would not have purchased or leased their Old GM or New GM vehicles or their New GM Certified Pre-Owned Vehicles ***and/or would have paid less***." 5ACC ¶ 41. Plaintiffs move for class certification relying on the claim that Boedeker's method will quantify "[c]hanges to the ***market price*** when a car becomes less desirable" because "it contains defects (that may or may not result in injury or death) and whether GM or the consumer (or both) knew about the defects." Dkt. 5847 at ¶ 133.[38]

2. Consideration Of Both (i) Willingness To Pay And (ii) Willingness To Sell Are Required For Determining Any Market Price.

"[T]he typical benefit-of-the bargain claim relies on a difference in fair market value (*i.e.* the amount that a willing buyer and willing seller would both accept) between the product as represented and the product actually received." *Saavedra v. Eli Lilly & Co.*, 2014 WL 7338930, at *4 (C.D. Cal. Dec. 18, 2014). Under the California UCL and CLRA, "fair market value is the

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[37] *See also U.S. v. United Techs. Corp.*, 782 F.3d 718, 731 (6th Cir. 2015) ("The only benchmark consistent with this benefit-of-the-bargain theory of damages is 'fair market value,' by which we meant (and still mean) 'what a willing buyer would pay in cash to a willing seller at the time.'") (*quoting U.S. v. 564.54 Acres of Land*, 441 U.S. 506 (1979)).

[38] *See also e.g.* Dkt. 2761 at 1 ("All Plaintiffs allege 'manifest' damages in the ***decreased market value*** of their cars"); *id.* at 28 ("[t]he revelation of the fraudulent scheme and the magnitude of concealed defects substantially ***reduced the fair market*** value of Plaintiffs' property."); Dkt. 2871 at 3 (damages "should reflect the difference between the ***market value*** of their vehicles if made by a reputable manufacturer…and the ***market value*** of their vehicles as actually made by a disreputable manufacturer."); Ex. 135, Pltf. Hr'g Slides, at 3 alleging plaintiffs paid a "premium on the sales price" where "the size of that premium [is] the ***difference in the market value*** of the vehicle as delivered and its market value on the condition it should have been delivered.".

'price that a seller is willing to accept and a buyer is willing to pay on the open market and in an arm's-length transaction.'" *Id.* (*quoting* Black's Law Dictionary (9th ed. 2009)); *In re NJOY, Inc. Consumer Class Action Litig.*, 120 F. Supp. 3d 1050, 1119 (C.D. Cal. 2015) ("Although Dr. Harris now proposes to use actual market prices instead of percentages, his models still ***only look to the demand side of the market equation***, and ignores the price at which NJOY, and other e-cigarette manufacturers, would be willing to sell their products. . . . Because Dr. Harris's 'modified' conjoint analysis and direct method continue to focus on a consumer's subjective valuation, [they] ***do not permit the court to calculate the true market price*** of N–JOY cigarettes absent the purported misrepresentations and omissions.").[39]   In Missouri, "'fair market value'… is a phrase without ambiguity in the law. It means the price which property will bring when it is offered for sale by an owner who is ***willing but under no compulsion to sell*** and is bought by a buyer who is willing or desires to purchase but is not compelled to do so." *Peterson v. Cont'l Boiler Works, Inc.*, 783 S.W.2d 896, 900 (Mo. 1990) (internal quotations and citations omitted)).[40]   Under Texas law, "[m]arket value is the amount that would be paid in cash by a willing buyer who desires to buy, but who is not required to buy, to a ***willing seller who desires to sell, but who does not need to sell***." *See GJP, Inc. v. Ghosh*, 251 S.W.3d 854, 888–89 (Tex. App. 2008).[41]

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[39] Boedeker inaccurately cites *In re NJOY* as holding that "damage in this case is the difference between the market price GM vehicle owners paid in the actual world and the true market price that GM would have needed to charge to sell the same quantity of vehicles to the same buyers had the defects known to GM been disclosed." (2d Rep. ¶ 69.) In fact, the *In re NJOY Court* rejected such an argument and ruled that a conjoint analysis offered to measure price premium damages did not support class certification because the expert "ignore[d] the price for which NJOY is willing to sell its products." *In re NJOY, Inc*, 120 F. Supp. 3d at 1119; *see also* New GM Memorandum in Opposition to Plaintiffs' Motion to Certify Bellwether Classes, filed contemporaneously.

[40]*See Equitable Life Assur. Soc. of U.S./Marriott Hotels, Inc. v. State Tax Comm'n of Missouri*, 852 S.W.2d 376, 380 (Mo. Ct. App. 1993) ("True value in money is defined as the price which the subject property would bring when offered for sale by one ***willing but under no compulsion to sell it***, and is bought by one willing or desirous to purchase, but who is not compelled to do so….") (internal quotations and citations omitted).

[41] *See also Nelson v. Najm,* 127 S.W.3d 170, 177 (Tex. App. 2003) ("Fair market value is defined as the price a willing buyer would pay to a willing seller."); *Exxon Corp. v. Middleton*, 613 S.W.2d 240, 246 (Tex. 1981); *Humes v. Hallmark*, 895 S.W.2d 475, 480 (Tex. App. 1995).

The United States Supreme Court, the Second Circuit, and Black's Law Dictionary

likewise all require consideration of both (i) willingness to pay and (ii) willingness to sell in order

to determine market price or market value.[42]

Like the laws of the three Bellwether states (and elsewhere), economists also define

"market price" to require both willingness to pay and willingness to sell. Indeed, the textbook

authored by plaintiffs' rebuttal expert Dr. Gans explains:

> The dictionary defines the word equilibrium as a situation in which various forces
> are in balance. This definition applies to a ***market's equilibrium*** as well. At the
> ***equilibrium price***, the quantity of the goods that buyers are willing and able to buy
> exactly balances the quantity that ***sellers are willing*** and able to sell.

Gans Textbook at 81. Numerous other economics textbooks are in accord.[43] As one textbook

states, citing the famous economist Alfred Marshall: "just as you cannot tell which blade of scissors

does the cutting, so too you cannot say that either demand or supply alone determines price."[44]

Also in accord are the opinions of economists expressly relied upon by Boedeker, all of whom

explain that Boedeker's opinions are "economically unsound" and result in an "illogical measure

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[42] *See Gillespie v. U.S.*, 23 F.3d 36, 40 (2d Cir. 1994) ("Fair market value is commonly defined as 'the price at which the property would change hands between a willing buyer and a willing seller.'") (*citing United States v. Cartwright*, 411 U.S. 546, 551 (1973)); *see also* Black's Law Dictionary, 4th ed. ("market value" is "fair market value," which is "[t]he price that a seller is willing to accept and a buyer is willing to pay on the open market and in an arm's-length transaction; the point at which supply and demand intersect").

[43] 8/13/18 List Rpt. n.45 (citing Acemoglu, Daron, Laibson, List, *Microeconomics*, 1st ed (2016) at 69-70 (discussing "willingness to accept"); 8/13/18 McFadden Rpt. ¶ 10 & n.27 (citing Nicholson & Snyder, *Microeconomic Theory*, 12th ed. at 11; Mankiw, *Principles of Microeconomics*, 8th ed. at 76-77 (At "market equilibrium" price, "the quantity of the goods that buyers are willing and able to buy exactly balances the quantity that sellers are willing and able to sell."); Krugman & Wells, *Microeconomics*, 4th ed. at 86 ("Equilibrium price is also known as the market-clearing price: it is the price that 'clears the market' by ensuring that every buyer willing to pay that price finds a seller willing to sell at that price, and vice versa."); Pindyck & Rubenfeld, *Microeconomics,* 9th ed. at 22-25 ("The supply curve shows the quantity of a good that producers are *willing to sell at a given price*"; "[t]he demand curve shows how much of a good consumers are willing to buy as prier per unit changes", and "[t]he two curves intersect at the equilibrium, or market-clearing, price and quantity."); Bernheim & Whinston, *Microeconomic*s, at 26-32 ("[a] product's supply curve shows how much sellers of a product want to sell at each possible price, holding fixed all other factors that affect supply . . . Once we know the demand and supply for a product, the next step is to determine equilibrium price. That is the price at which the amounts supplied and demanded are equal. Graphically, it's the price at which the supply and demand curve intersect.").

[44] Nicolson & Snyder at. 11.

of loss" because he completely ignores the willingness to sell part of the equation.[45]

3.   Boedeker Does Not Measure Actual Or But-For Vehicle Market Prices.

Boedeker's conjoint surveys and damages methodology do not and cannot determine any

actual or but-for market prices for GM vehicles.

First, Boedeker does not determine actual-world market prices for vehicles because his

conjoint surveys do not even involve vehicles much less seek to determine vehicle prices. For

example, as shown in "Choice 3" in the screenshot on page 7 above, one of Boedeker's survey

"scenarios" involves no safety features, "information" ("no defect that could cause accidents"),

and an arbitrary price of $2,500. Boedeker does not determine an actual-world market price for

such "scenarios."

Second, Boedeker's five price points are arbitrary and do not correspond to any observed

market prices because such "scenarios" (which include both "safety features" and "information")

would never be sold in the marketplace. Boedeker did no research to determine whether these

prices were consistent with the prices in the market for such "scenarios." 2/6/18 Dep. 109:10-14,

134:3-135:14; 2/7/18 Dep. 481:15-482:7.[46]

Third, Boedeker does not consider ***willingness to sell*** at his hypothetical conjoint prices.

7/6/18 Dep. 462:11-18 ("Q. You are not opining that New GM would be willing to sell these option

packages at the prices offered in your conjoints, are you? . . . A. I'm not opining on New GM's

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[45] 2/23/18 McFadden Rpt. ¶¶ 4,8-9, 82; 8/13/18 McFadden Rpt. re Boedeker ¶ 9; 2/23/18 Rossi Rpt. ¶ 12; 8/13/18 Rossi Rpt. re Boedeker. ¶ 13; 2/23/18 List Rpt. ¶ 10; 8/13/18 List Rpt. ¶¶ 50-51. Plaintiffs' lost-time expert agrees that "[y]ou have to look at the supply side to get the market price." Manuel Dep. 19:24-25.

[46] Boedeker's "scenarios" include numerous combinations of "safety features," "information," and "price." Some scenarios, such as "Choice 3" in the screenshot at page 7 above, involve no safety features, but involve "information" and a related price. Boedeker does not identify real-world market prices for this "information" component (*e.g.,* the "information" in one survey that "No, no recall needed, vehicle is safe as is. . ." OCDA Dep. Ex. 4, OCDA Survey Screenshots _2, at 25). *See also Adams v. Target Corp.*, 2014 WL 12558858, at *3 (C.D. Cal. 2014) (expressing skepticism over conjoint analysis because "'sized as advertised' is not a feature of waterslides in any normal sense. And conjoint analysis is not effective when the features that it focuses on are artificial because the analysis does not reflect real-world consumer behavior").

willingness to sell those option packages at those prices. That is correct.").[47] Because willingness to sell is an essential ingredient for determining a market price, Boedeker's methodology cannot determine actual or but-for market prices at all, much less for any vehicles in the putative class.

4.   An Incorrect "Fixed Supply" Does Not Yield A Market Price.

Recognizing that neither law nor economics permits one to determine a market price without consideration of willingness to sell, Boedeker relies on what he calls a "fixed supply" to determine a purported "*market price* at which all consumers who bought the product with the alleged false statement would buy the product again if they find out about the falsity of the statement."[48] 2nd Rpt. ¶ 32a. Without citation, Boedeker asserts that "given a fixed supply equal to the supply in the actual world, the estimated drop in the *willingness-to-pay* is the estimate of the economic loss and can be used to calculate the economic loss for all consumers who purchased in the actual world," while ignoring *willingness to sell* the "fixed supply" at the lower price. *Id.* ¶ 506. But Boedeker's "market price" re-definition is irreconcilable with that term's precise legal and economic definition.[49]

First, Boedeker's "fixed supply" assumption—that a change in what he mislabels as "market price" is determined solely by a change in willingness to pay for the original quantity supplied regardless of willingness to sell that same quantity at a lower price—exists neither in the

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[47] 8/13/18 McFadden Rpt. re Boedeker ¶¶ 9-10 & n. 20; 8/13/18 Rossi Rpt. ¶¶ 9-13; 2/23/18 List Rpt. ¶ 10. Dr. Gans agrees that Boedeker did not analyze willingness to sell—either in the actual or the but-for world. Gans Dep. 225.

[48] Boedeker does not determine the price at which "all consumers would buy the product again." Instead Boedeker purportedly determines the change in price that would be necessary to hold constant the *average* probability that survey respondents would buy a scenario if a defect/recall were disclosed. Dr. Gans concedes that, in reality, 1) some buyers in the actual world would not be buyers in the but-for world; (2) some non-buyers in the but-for world would be buyers in the actual world; and (3) some buyers in the actual word may have zero or negative willingness-to-pay in the but-for world. 6/27/18 Gans Dep. 135-36, 261; 6/28/18 Gans Dep. 354.

[49] 8/13/18 Rossi Rpt. ¶¶ 9-12; 8/13/18 McFadden Rpt. re Boedeker ¶¶ 4-11 8/13/18 McFadden Rpt. re Gans ¶¶ 4-15.

real world nor in economics.[50]   Neither Boedeker nor Dr. Gans cites any academic authority

supporting this novel theory.[51]   Nor could they, because there is no such thing as a "market price"

that ignores willingness to sell at that price; such a concept or market price definition is an

economic impossibility. 2/23/18 List Rpt. ¶ 20; 8/13/18 List Rpt. ¶ 50. As Dr. McFadden explains,

"it does not matter if the vehicles" were "already sold"—"market price" always requires

consideration of willingness to pay and willingness to sell at that price. 8/13/18 McFadden Rpt.

re Boedeker ¶¶ 9-10.[52]

   Second, Boedeker's "fixed supply" methodology does not answer (i) what is being held

"fixed"; and (ii) what is the "fixed" quantity of that product? Boedeker's report claims he is

holding the number of "vehicles" fixed.[53]   Boedeker's conjoint surveys analyze "scenarios"

(including "safety features" and certain "information revealed at the point of purchase"); they do

not analyze "vehicles."[54]   Thus, as Boedeker's Figure 19 (as New GM annotated below)

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[50] *See* 8/13/18 McFadden Rpt. re Gans n. 11 ("I am unaware of any economic literature that allows one to combine the two concepts as Professor Gans and Mr. Boedeker attempt to do in this matter—*i.e.*, by requiring the supplier to hold quantity fixed at the quantity of sales prevailing in the as-is equilibrium (or—equivalently—requiring class members to purchase the same number of vehicles that they purchased under as is conditions)."

[51] *See, e.g.,* 6/27/18 Gans Dep. 291:6-19 ("Q. So your report does not contain any citation to work by economists using a fixed supply to determine economic loss, right? A. I didn't... I didn't cite, no I don't contain any citation on that I offered my opinion on that. Q. But you didn't cite any economic literature on that? A. No."). Boedeker cites Busse, *et. al.*, "Are Consumers Myopic? Evidence from New and Used Car Purchases," *Am. Econ. Rev*, 103, no. 1 (February 2013): 220–256, 2013, p. 243. (2nd Rpt. at n. 500.) Although Boedeker's personal definition of "fixed supply" is different from "inelastic supply," this article uses "fixed supply" as a synonym for "inelastic supply." *See* Busse at Figure 5 (showing vertical/inelastic supply curve for used cars). The same figure in the article depicts the supply of new cars as being more elastic. *Id.* Significantly, and in contrast to the article, Boedeker rejects "the argument of a vertical [or inelastic] supply curve" as "fundamentally flawed because a vertical supply curve means that a given product is supplied by the manufacturer in the same quantity no matter what the price is." 2nd Rpt. ¶ 387.

[52] 8/13/18 Rossi Rpt. ¶ 10 (same).

[53] 2nd Rpt. ¶ 32b ("The Boedeker Study correctly asserts that the GM vehicles sold without the disclosure of the defect at the point of purchase at issue in this case represent a *fixed number of vehicles sold*. This fixed number can easily be obtained from the list of recalled vehicles.").

[54] Boedeker speculates that "[h]ad GM told customers about the defect after cars were produced but before they had been sold and had demand declined as a result, so would the price *needed to clear the inventory* of already produced vehicles that were viewed as lower-quality than customers had believed when GM made its production decision." 2nd Rpt. ¶ 37. But the benefit-of-the-bargain measure proposed by plaintiffs—and approved by this Court—does not require "clear[ing of] the inventory." *Id.* As the Court explained: "Plaintiffs who purchased defective cars were injured when they purchased for x dollars a New GM car that contained a latent defect; had they known about the

demonstrates, Boedeker cannot determine a starting point for his invented "fixed" quantity; indeed, that quantity could fall anywhere along Boedeker's actual-world demand curve:[55]

Figure 19:   Demand Curves in the Actual-World and the But-For-World
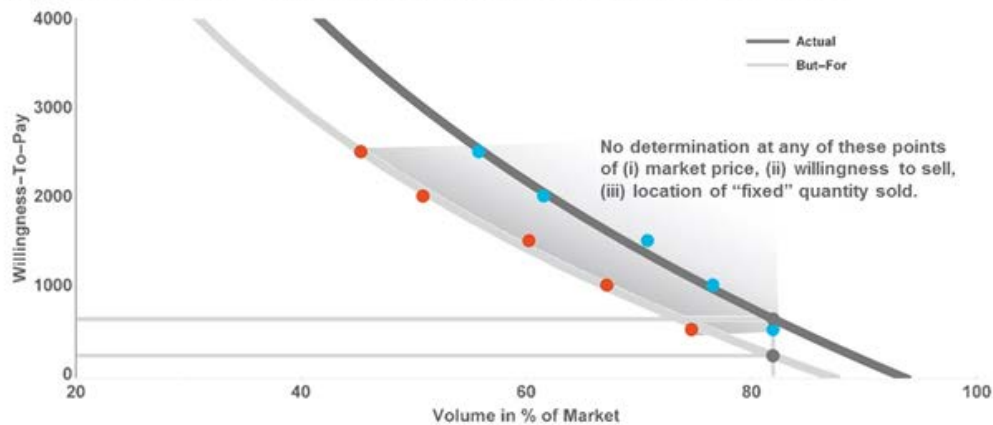
Source: Own Analysis based on Conjoint Suvey.

Third, Boedeker cannot determine any but-for market price at that "fixed" quantity. Willingness to sell is an essential component of any market price, but Boedeker did not assess willingness to sell at his actual *or* but-for conjoint prices.[56]   *See* Annotated Figure 19 above (Boedeker has not determined willingness to sell at any point along his but-for demand curve, and therefore cannot determine any but-for market price).   Dr. Gans also concedes it is "highly unlikely

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defect, they would have paid fewer than x dollars for the car *(or not bought the car at all)*, because a car with a safety defect is worth less than a car without a safety defect." *In re Gen. Motors LLC.*, 2018 WL 1638096, at *1 (*quoting In re Gen. Motors LLC Ignition Switch Litig.*, 2016 WL 3920353, at *7 (S.D.N.Y. July 15, 2016)).   Boedeker's "price needed to clear the inventory" measure also ignores that purchases occurred over a five-year period (2009-2014); if New GM had disclosed defects in 2009, it could—if the demand for those vehicles dropped—have reduced the quantity manufactured and/or sold in any year between 2010 and 2014.   Gans Dep. 302-303.

[55] Boedeker's "scenarios" are not sold in the marketplace.   But even assuming *arguendo* that Boedeker's scenarios only included "safety features" (they do not), Boedeker cannot even claim that the supply or volume of safety feature packages sold equals the supply or volume of vehicles sold.   As but one example, Boedeker's MDL survey scenarios included eight different safety feature combinations (some combination of collision avoidance system, lane departure warning, and rearview camera).   But, for example, Boedeker does not know how many vehicles were sold with lane departure warning but no collision avoidance system or rearview camera.   And the problem is even worse than that, because Boedeker's scenarios include not only "safety features," but also price and other hypothetical "information."

[56] 7/6/18 Dep. 462; 6/27/18 Gans Dep. 225.   Boedeker and Dr. Gans treat New GM as the "seller" in both the actual world and the but-for world. *Id.* 249.   "A *market* is a group of buyers *and sellers* of a particular good or service." Gans Textbook 67.   "In any market, buyers look at the price when determining how much to demand and sellers look at the price when deciding how much to supply."   6/27/18 Gans Dep. 50.

that GM—it would have wanted to sell the same amount of cars at the price implied by Mr. Boedeker's 'but-for' analysis." 6/27/18 Gans Dep. 281:6-10.[57]

Fourth, Boedeker repeatedly argues that his invented definition of "fixed supply" is different from an "inelastic supply curve."[58] This is significant, because unlike Boedeker's idiosyncratic definition of "fixed supply," an "inelastic supply curve" has a recognized meaning in economics, which is that sellers are *willing* to sell the same quantity at a lower price. 2/23/18 List Rpt. ¶ 20. But both Boedeker and New GM's experts opine that the supply curves are not inelastic in this case.[59] Thus, Boedeker agrees with Dr. List and Dr. McFadden, both of whom opine that an "inelastic supply curve" for vehicles is unsupported, "impossible" and "makes no sense" as a matter of fundamental economics.[60]

B.   Boedeker's Methodology Independently Fails Because It Relies Upon A Novel "Penalty"-Based Methodology Having No Basis In Law Or Economics.

Plaintiffs have never claimed, alleged or sought recovery in this litigation for a "punitive"

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[57] Because Boedeker ignores willingness to sell any "fixed" quantity at a but-for price, it is not a "market price." A "market price" always "requires consideration of both willingness to pay and willingness to sell at that price." 8/13/18 Rossi Rpt. ¶ 10; *see also* 8/13/18 McFadden Rpt. re Boedeker ¶¶ 9-10; Nicholson & Snyder at 11 (supply and demand operate "simultaneously" to determine any market price, like two "blade[s] of scissors").

[58] 2nd Rpt.¶ 32b (economists should not "confuse a fixed supply with an inelastic supply"; "this fixed number can easily be obtained from the list of recalled vehicles during the relevant time period. In contrast, an inelastic supply is defined as unresponsiveness to price changes. . . the Boedeker Study does not use an inelastic supply").

[59] Boedeker opines that "the argument of a vertical supply curve is fundamentally flawed because a vertical supply curve means that a given product is supplied by the manufacturer in the same quantity no matter what the price is." 2nd Rpt. ¶ 32b; *see also* 7/5/18 Dep. 62-63 ("Q. Do you think that the supply curve for cars is elastic, inelastic, or something else? A. In general, cars as a good do have an elastic supply curve. Just like the demand for cars is elastic, right. It's not that—that inelastic or whatever other things you were thinking about in your question."); *id.* (Q. "And you say (as read): There is no evidence in the data presented by any of the GM experts that the supply is inelastic. Is that your opinion? A. From the review of the data that were used, right, there's no — prices are not inelastic, or supply is not inelastic. Q. And here we're talking about supply of GM vehicles? A. I think this is the general, yeah. This must be GM, so it's no longer a hypothetical elastic example."); Ex. 119, *Dial* Tr. 224 (Boedeker: "I did not use a vertical supply curve in this case, and the only time I heard about a vertical supply curve is the Rolls Royce Dealership in Beverly Hills where people buy a Rolls Royce no matter what the price, how the people can afford it and then buy, but I've never seen it elsewhere and I've never applied it elsewhere.").

[60] 2/23/18 List Rpt. at 11, 13 ("The extreme assumption that the supply curve is vertical makes no sense and is in fact impossible in this setting for several reasons . . . [C]ertain ancient artifacts cannot be duplicated and therefore their supply is fixed regardless of the price . . . [A]utomobiles and their components can be duplicated and supply can expand or contract."); 8/13/18 McFadden Rpt. n.25.

or "penalty-based" component of benefit-of-the-bargain damages. No such recovery is legally permissible in the Bellwether states (or any others for that matter). Yet Boedeker and Dr. Gans justify the "fixed supply" assumption as a necessary "penalty" to impose upon New GM due to alleged "active deception." 2nd Rpt. ¶ 16; 6/27/18 Gans Dep. 241. Boedeker's penalty-based damages methodology is economically infirm and does not fit benefit of the bargain damages law.

1.   Boedeker's Penalty-Based "Fixed Supply" Measure Is Pure *Ipse Dixit* And Is Contrary To Law.

Boedeker concedes that if a change in market price were determined using supply and demand curves (as required by basic economics and the law), it very well could result in this litigation of "an estimate of $0 damages to deceived buyers if GM's supply elasticity is sufficiently high." 2nd Rpt. ¶ 15. This is an arresting admission, specifically: applying Boedeker's methodology using both supply and demand curves as required could very well estimate no damages at all. But, of course, a zero damages methodology is not what plaintiffs' counsel are seeking. To avoid this outcome, Boedeker offers the untethered assertion that there "need[s] to be a penalty (in the economic sense) for active deception" incorporated into his methodology. *Id.* ¶ 16.

Plaintiffs' other benefit-of-the-bargain expert, Dr. Gans. acknowledges Boedeker's "fixed supply" measure of damages and expressly incorporates such a "penalty" into his methodology. *Id.*; 6/27/18 Gans Dep. 241. As Dr. Gans explained:

> Q. [W]hen you say that there needs to be a penalty in the economic sense for active deception,
> A. Yes.
> Q. [I]s compelling the number of vehicles supplied in the 'but-for' world to be the same as in the actual world
> A. Yes.
> Q. -- consistent with that?
> A. Yes, it is. It is consistent. In fact, it's compelled by that.

6/27/18 Gans Dep. 286:20-287:5; *see also* 8/31/18 Gans Rpt. ¶ 12 ("Absent any penalty, the seller

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earns more from deception than transparently selling a product with a known defect.").

Boedeker's and Gans' "penalty"-based methodology is economically unsound and legally improper. As Dr. McFadden explains: "I am not aware of any economic literature that supports the approach that Mr. Boedeker and Professor Gans take towards estimating a penalty." 8/13/18 McFadden Rpt. ¶ 11. Boedeker's penalty-based damages measure is also contrary to law. None of the Bellwether states allows or incorporates a penalty into the benefit-of-the-bargain measure of damages, which, by definition, are designed to compensate in the amount of a change in market value, not penalize.[61] *See* Black's Law Dictionary, 14th ed. ("Penalty" includes "a sum of money exacted as punishment. . .as distinguished from compensation for the injured party's loss"). Any penalty or punitive damages opinions are also outside the province of admissible expert testimony here. *See also Voilas v. Gen. Motors Corp.*, 73 F. Supp. 2d 452 (D.N.J. 1999) ("there are numerous problems associated with allowing expert testimony on the issue of punitive damages. . . there are no credentials that could qualify an individual as a punitive damages expert, primarily because the area of assessing punitive damages, implicative of various societal policies and lacking any basis in economics, rests strictly within the province of the jury and, thus, does not necessitate the aid of expert testimony.").[62]

2. Boedeker's Penalty-Based Damages Methodology Also Impermissibly Permits a Double Recovery Contrary To Benefit-Of-The-Bargain Law.

Benefit-of-the-bargain damages are required to be measured "at the time of sale." But

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[61] *See also Raines v. Coastal Pac. Food Distributors, Inc*., 234 Cal. Rptr. 3d 1, 12 (Ct. App. 2018) ("Damages are intended to be compensatory, to make one whole. (See Civ. Code, § 3281.) Accordingly, there must be an injury to compensate. On the other hand, *[c]ivil penalties*, like punitive damages, are *intended to punish the wrongdoer and to deter future misconduct*.") (internal quotation marks omitted).

[62] *See also Lopez v. Geico Ins. Co.*, 2013 WL 9720887, at *2 (D.N.M. Oct. 9, 2013) ("Punitive damages are entirely within the purview and ability of a jury to determine" and do "not require any particular expertise."); *Anderson v. Boeing Co.*, 2005 WL 6011245, at *2 (N.D. Okla. Aug. 2, 2005) (noting "the absence of citation to any cases where such [expert] testimony has been received on the issue of punitive damages.)

applying their penalty-based methodology, Boedeker also impermissibly includes post-sale harm arising during the period "***between purchase and recall*** [when] purchasers ... were driving around at a greater degree of risk." (Ex. 36, 5/18/18 Gans Rpt. ¶ 53)

Boedeker fails to explain why economics or benefit-of-the-bargain law requires New GM to compensate the same population both (i) for historical " risk they incurred after purchase," and (ii) for any injuries that were actually incurred, *e.g.*, personal injuries or property damages. Personal injury plaintiffs in this litigation have had the opportunity to assert claims for such actual injuries—and they have done so. As Judge Easterbrook has explained, "[i]f tort law fully compensates those who are physically injured, then any recoveries by those whose products function properly mean excess compensation." *In re Bridgestone/Firestone, Inc.*, 288 F.3d 1012, 1017 (7th Cir. 2002).[63]

Because Boedeker's penalty-based methodology impermissibly seeks to compensate putative economic loss class members for the historical risk of injury (which never occurred to them) when driving after the sale and up to the point of any applicable 2014 recall, plaintiffs' damages model would result in a double recovery for the reasons explained by Judge Easterbrook in *Bridgestone/Firestone*—making the model and all related expert opinions unreliable, irrelevant, and inadmissible. *See Malletier*, 525 F. Supp. 2d at 662–63; *Alexander*, 2015 WL 4489185, at *1.

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[63] *See also In re Bridgestone/Firestone, Inc.*, 288 F.3d 1012, 1017 (7th Cir. 2002) ("Consider an example. Defendant sells 1,000 widgets for $10,000 apiece. If 1% of the widgets fail as the result of an avoidable defect, and each injury creates a loss of $50,000, then the group will experience 10 failures, and the injured buyers will be entitled to $500,000 in tort damages. That is full compensation for the entire loss; a manufacturer should not spend more than $500,000 to make the widgets safer. Suppose, however, that uninjured buyers could collect damages on the theory that the risk of failure made each widget less valuable . . . This would both overcompensate buyers as a class and induce manufacturers to spend inefficiently much to reduce the risks of defects. A consistent system—$500 in damages to every buyer, or $50,000 in damages to every injured buyer—creates both the right compensation and the right incentives. A mixed system overcompensates buyers and leads to excess precautions.").

C.   Boedeker's Conjoint Studies Cannot Determine Market Price.

Various courts have admitted conjoint analyses in certain circumstances,[64] but Boedeker's

misplaced reliance on flawed conjoint studies is neither relevant nor reliable in this case. As Nobel

Laureate Dr. McFadden explains, "conjoint analysis applies only to the demand side and cannot

be used on its own to determine a 'but for' market price." 2/23/18 McFadden Rpt. ¶ 85. Consistent

with these fundamental economic principles,[65] courts have excluded conjoint analyses that purport

to determine a decrease in market price on grounds the expert fails to consider (i) real-world market

prices; and/or (ii) willingness to sell. For example, in *Saavedra v. Eli Lilly & Co.*, 2014 WL

7338930 (C.D. Cal. 2014), the Court rejected plaintiffs' conjoint analysis-based damage model for

California's UCL and CLRA claims because it failed to consider willingness to sell:

> Dr. Hay proposes calculating class members' lost consumer value using conjoint
> analysis. . . . [His] model looks only to the demand side of the market equation. By
> looking only to consumer demand while ignoring supply, Dr. Hay's method of
> computing damages converts the lost-expectation theory from an objective
> evaluation of relative fair market values to a seemingly subjective inquiry of what
> an average consumer wants. The Court has found ***no case*** holding that a consumer
> may recover based on consumers' ***willingness to pay irrespective of*** what would
> happen in a functioning market (*i.e.* what could be called sellers' ***willingness to
> sell***).

Id. at *4. Similarly, in *In re NJOY*, the Court held that a "conjoint analysis" did not support class

certification because it could only "quantify the relative value a class of consumers ascribed to [a]

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[64] For example, courts in certain cases have admitted conjoint analyses for the purpose of determining willingness to pay. *See, e.g., Odyssey Wireless, Inc. v. Apple Inc.*, 2016 WL 7644790, at *9 & n.12 (S.D. Cal. Sept. 14, 2016) ("a conjoint analysis is a generally accepted method for valuing the individual characteristics of a product"; distinguishing *Oracle*, 2012 WL 850705, on ground that "[i]n *Oracle*, the expert at issue used a conjoint analysis to attempt to measure market share, not a consumer's willingness to pay for a particular feature of a product"); *TV Interactive Data Corp. v. Sony Corp.*, 929 F. Supp. 2d 1006, 1020 (N.D. Cal. 2013) ("Professor Srinivasan estimated the '***market's willingness to pay***' ('MWTP') for TVI's patented technology as an incremental benefit in Sony's accused products."); *Apple Inc. v. Samsung Elecs. Co.*, 735 F.3d 1352, 1367 (Fed. Cir. 2013) (in patent case, reversing district court exclusion of conjoint analysis as evidence of "willingness to pay"); *Microsoft v. Motorola*, 904 F. Supp. 2d 1009, 1120 (W.D. Wash. 2012) (in patent case, admitting survey that "sought to solicit data on the impact on consumer demand").

[65] 2/23/18 List Rpt. ¶ 56; 2/13/18 Rossi Rpt. ¶ 14.

safety message" but did not "permit the court to turn the relative valuation into an absolute

valuation to be awarded as damages." 120 F. Supp. 3d at 1119. The *NJOY* Court explained that

"[t]he ultimate price of a product is a combination of market demand and market supply," but the

expert's model looked "only to the demand side of the market equation" and ignored the price the

defendant was "willing to sell its products." *Id*. Likewise, in *Apple, Inc. v. Samsung Electronics

Co.*, 2014 WL 976898 (N.D. Cal. Mar. 6, 2014), the Court held that "the ultimate price of a product

is a combination of market demand and market supply." *Id.* at *11. Thus, where a "survey

measures the market demand for" particular product attributes "in a vacuum, without relation to

the actual price or value of the" product, that "survey leaves the Court with no way to compare

[the expert's] willingness to pay metrics—which relate only to demand for the…feature—to the

market price of the [product], which reflects the real-world interaction of supply and demand for

the products." *Id.*[66]

In their class certification motion (Dkt. 5846 at 29), Plaintiffs cite two cases where Courts

denied motions to exclude Boedeker's work: *In re MyFord Touch Consumer Litig.*, 291 F. Supp.

3d 936, 970 (N.D. Cal. 2018), and *In re Dial Complete Mktg. & Sales Practices Litig.*, 320 F.R.D.

326, 329 (D.N.H. 2017). But these cases do not support Boedeker here; in fact, they confirm the

unreliability and inadmissibility of his methodology and opinions in this case.

a.   The *Dial* Opinion Relies On A Fundamental Misunderstanding Of Dr. McFadden's Work.

The *Dial* Court mistakenly admitted Boedeker's conjoint survey analysis and opinions;

specifically, the *Dial* Court misapplied an article written by Dr. McFadden, who did not testify in

that case and who was not consulted in that case by anyone, to find that it supported Boedeker.

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[66] In *Apple Inc. v. Samsung Elecs. Co.*, the Federal Circuit discussed a survey by the same expert in a different lawsuit without ruling on the market price supply-and-demand issue, instead addressing the relationship between measures of willingness to pay and causation under patent law. 809 F.3d 633, 644 (Fed. Cir. 2015).

New GM engaged Dr. McFadden as expert to address this issue. Dr. McFadden explains that the

Dial Court misreads his article, and that his article does not support the *Dial* Court's conclusion.

That decision, Dr. McFadden further explains, also reveals a fundamental flaw in this case that did

not exist in *Dial*.

 First, in permitting Boedeker's testimony, the *Dial* Court[67] misread a Law360 article co-

authored by Dr. McFadden.[68] Dr. McFadden explains:

> The *Dial* court failed to recognize that the admonition in my Law360 article on the necessity of determining the [willingness to pay ("WTP")] of the marginal consumer ***did not indicate that this could be done without considering the supply side***. . . . In fact, ***Mr. Boedeker did not and could not determine the marginal consumer*** from his conjoint-based method. The marginal consumer is the consumer whose WTP is equal to the market price and one cannot compute a market price based on even a validly designed conjoint analysis alone.

2/23/18 McFadden Rpt. ¶¶ 73-74.   Because the *Dial* Court did not have the benefit of Dr.

McFadden's report or testimony, it misread Dr. McFadden's article and erroneously concluded

that Boedeker had identified the "willingness to pay of the marginal consumer." *In re Dial*, 320

F.R.D. at 336. In this case, Dr. McFadden clarifies that a "marginal consumer" cannot be identified

without consideration of a seller's willingness to sell and that Boedeker's failure to compute a

supply curve renders his methodology incapable of determine market price impact (if any).[69]

 Second, in *Dial*, Boedeker's conjoint survey analysis (unlike here) involved the actual

product at issue, hand soap, and he measured the price of the product at issue; thus, Boedeker "set

the price attribute at nine different point levels, ranging from $0.99 to $3.99 to reflect prices he

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[67] The *Dial* Court candidly noted it did not have economic background. Ex. 113, 11/16/16 Hr'g Tr. at 106-07.

[68] *In re Dial.*, 320 F.R.D. at 336 ("[The] Boedeker's model purports to calculate the 'Marginal Consumer's Willingness to Pay' for that product in the actual market in which the products . . . were sold. The distinction is important, for, as explained in a brief paper co-authored by Lisa Cameron, Michael Craig, and Nobel Laureate in Economics Daniel McFadden . . . 'It is the WTP of the marginal consumer that is equivalent to the price premium associated with the infringing level of the attribute; this marginal consumer can be identified by offering respondents a 'no buy' option.'")

[69] As Dr. McFadden explains, the *Dial* Court got it wrong in its analysis of Dr. McFadden's own work. 2/23/18 McFadden Rpt. ¶¶ 83-85; *see also* 8/13/18 McFaddden Rpt. re Boedeker ¶¶ 9-10.

[actually] observed in his preliminary research" on this product. 320 F.R.D. at 32. Here, however,

Boedeker purported to construct demand curves for hypothetical safety-feature scenarios, not

vehicles.[70] And, the prices are purely arbitrary because no such "scenarios" are or would be sold

in any actual marketplace. Thus, *Dial* not only was predicated on a fundamental misunderstanding

of Dr. McFadden's work, but confirms that Boedeker's opinions in this case are unreliable and

irrelevant because Boedeker did not measure vehicle prices.[71]

> **b.** **The *MyFord Touch* Court Relied On An Inelastic Supply Curve Assumption That Is Inapplicable In This Case And Improperly Rejected Accepted Economic Principles.**

Plaintiffs' expected reliance on *MyFord Touch* fares no better. In that case, the Court did

not ignore the sellers' willingness to sell in the but-for world, but instead concluded that it was not

"indisputably wrong" to assume that Ford would be ***willing*** to sell the same quantity of "vehicles"

at a lower price (*i.e.*, an inelastic supply curve).[72] Whether the Court in *My Ford Touch* had any

evidentiary record and/or expert basis to make its "not so far-fetched as to be indisputably

wrong"[73] inelastic-supply-curve assumption is unclear. In this case, however, an inelastic supply

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[70] Unlike in *Dial*, because there is no actual market for these safety-feature scenarios, Boedeker could not "set the price attribute" at "different point levels . . . to reflect prices he observed" in the real world. For example, Boedeker did not observe a market price for a "scenario" with no safety features, no recall, and the "vehicle is safe as is" disclosure. But Boedeker included precisely that "scenario" in his conjoint analysis.

[71] The *Dial* court focused on Dial's ability to sell at the but-for price: "[Boedeker's] model seeks to calculate the highest price in the actual market at which Dial could have sold the same number of products without the challenged claim. . . . Boedeker's model asks, it appears, "At what price in that actual market in which Dial sold the offending products ***could Dial have sold*** the equivalent number of products without the false claim(s)?" *In re Dial*, 320 F.R.D. at 336. But the *Dial* Court did not consider New GM's argument that under basic economic and legal principles, a market equilibrium price requires not only the ***ability*** to sell at the but-for price, but also the ***willingness*** to sell.

[72] *MyFord Touch*, 291 F. Supp. 3d at 970 ("The assumption that Ford would have sold the same number of vehicles notwithstanding a drop in value ranging from $729–$1,290 is not so far-fetched as to be indisputably wrong"); *see also id.* ("Though Mr. Boedeker adamantly denies that his analysis is consistent with assuming a vertical supply curve, that is the effect."). An inelastic supply curve means that sellers are willing to sell the same quantity at a lower price. *See* 2/23/18 List Rpt. at 11; Gans Dep. 275 ("a supply curve gives you the amount that a supplier would choose to supply at given prices"); Ex. 112, Gans' Dep. Ex. 4, Gans Textbook 105, 107.

[73] Courts do not (and should not) admit expert testimony merely because it is based on assumptions that are not "indisputably wrong." That is not a recognized or proper legal standard in the Second Circuit or elsewhere. Instead, proffered "expert testimony should be excluded if it is speculative or conjectural"; the "[a]dmission of expert

assumption is false because all experts—including Boedeker and Dr. Gans—agree that GM vehicle

supply curves are not inelastic.[74]   In addition, the *MyFord Touch* inelastic-supply-curve holding

expressly applied to the "number of vehicles."   291 F. Supp. 3d at 970.   Boedeker's conjoint

analyses here do not involve vehicles.   And neither Boedeker nor any other expert opines that the

supply of "scenarios" or "safety features" is inelastic.

The *My Ford Touch* court also incorrectly relied on "policy reasons to afford Plaintiffs a

reasonable opportunity to posit damages based on a more flexible approach to economic theory."[75]

The *MyFord Touch* Court's "policy" recommendations are erroneous as a matter of basic math,

economics and law, and regardless, should not be followed for three reasons.

First, Drs. McFadden and Rossi explain the *MyFord Touch* policy is based on a

mathematically wrong conclusion that a supply response results in under-compensation because:

(1) a difference in market price is calculated by allowing the quantity supplied to change in the

but-for world; and (2) that "difference in market prices (if any) would be awarded to all proposed

class members to compensate them for possible overpayment. Each class member would receive

an award equal to the estimated overpayment."[76]

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testimony based on speculative assumptions is an abuse of discretion." *Major League Baseball Properties, Inc. v. Salvino, Inc.*, 542 F.3d 290, 311 (2d Cir. 2008) (alteration in original).

[74] *See* Section II above. Moreover, Boedeker's analysis generates over $9,000 in damages for some vehicles. Boedeker does not and cannot opine that GM would be willing to sell the same number of vehicles (much less "scenarios") if the price decreased by over $9,000.

[75] *Id.* at 971 (Recognizing that "projecting an equilibrium market price requires consideration of both supply and demand curves," but holding that "the fact that a fixed number of vehicles were in fact sold (and thus a fixed number of consumers were potentially harmed) merits assuming that the size of the class is the same in both the hypothetical and real worlds and assessing damages on that basis. Doing otherwise might allow a defendant to profit in the real world by its wrongdoing (if proven) based on the notion that fewer people were harmed in the hypothetical world.").

[76] 8/13/18 Rossi Rpt. ¶ 4; *see* 4/10/18 McFadden Dep. 15-20 ("the damage is the difference between the price actually paid and the price that would have been paid in that but-for world . . . that difference would apply to each" class member; "[b]ut that difference would be determined by the market equilibrium price in the but-for world compared with the market equilibrium price in the as-is world," even though the but-for market price is calculated based on a reduced quantity supplied). Indeed, in a report that Dr. Gans issued in the *In re Whirlpool Corp. Front-Loading Washer Litigation*, he opined that, if the Court "believed that the but-for marketplace should be taken into consideration," then all eligible putative class members would be compensated with the same change in market price, even though estimating the but-for price "requires a measure of the supply response to a change in prices." Ex. 118,

Second, *Erie* precludes the *MyFord Touch* Court's "policy reasons" from superseding substantive state law[77] that requires willingness to sell to determine "market price," "market value," and benefit-of-the-bargain damages.

Third, the Court incorrectly stated that "doing otherwise might allow a defendant to profit in the real world by its wrongdoing (if proven) based on the notion that fewer people were *harmed* in the hypothetical world." *MyFord Touch*, 291 F. Supp. 3d at 971. The Court's assertion simply assumes the existence and quantum of "harm." Under the law of the Bellwether states, "harm" is measured by a change in "market price," which requires consideration of willingness to sell in the actual and but-for worlds. If there is no change in market price, then there is no "harm." Indeed, Boedeker concedes that if he considered a highly elastic supply curve in his analysis, the damages would be low or even $0. Boedeker 2nd Rpt. ¶ 15. Thus, by ignoring any supply curve, Boedeker simply concocts his own "harm."[78]

Whirlpool Gans Rpt. ¶¶ 61-65; *see also* Memorandum of Law in Support of General Motors LLC's Motion to Exclude the Options of Dr. Joshua Gans at 11-12 (describing Dr. Gans' *Whirlpool* report).

[77] *MyFord Touch* observed that "as a matter of economic theory, projecting an equilibrium market price requires consideration of both supply and demand curves." 291 F. Supp. 3d at 971.

[78] The cases that have followed *Dial* and *MyFord Touch* are inapplicable because none of them had the benefit for McFadden's correction regarding the interpretation of his article, because all experts in the current case agree there is no inelastic supply curve, because various of the cases involved conjoint analyses that included actual market prices for the product at issue (as opposed to the Boedeker conjoint involving scenarios for which no real-world market prices exist), and for other reasons. *See, e.g.*, *Fitzhenry-Russell v. Dr. Pepper Snapple Grp., Inc.,* 2018 WL 3126385, at *8 (N.D. Cal. June 26, 2018) (expert used "actual market-clearing prices as the basis for the prices in the survey"; repeating *Dial* assertion that but-for price is "highest price in the actual market at which [defendant] *could* have sold the same number of products without the challenged [statement]," without considering whether *willingness* to sell was required to determine but-for market price under applicable state law); *Hadley v. Kellogg Sales Co.*, 2018 WL 3954587, at *13 (N.D. Cal. Aug. 17, 2018) (holding conjoint accounted for supply in the actual world because "the prices used in the surveys underlying the analyses reflect the actual market prices that prevailed during the class period"; repeating *Dial* holding that but-for price is "highest price in the actual market at which [defendant] *could* have sold the same number of products without the challenged [statement]," without considering whether *willingness* to sell was required to determine but-for market price under applicable state law); *Davidson v. Apple, Inc.*, 2018 WL 2325426, at *22 (N.D. Cal. May 8, 2018) (relying on *MyFord Touch* to assume an inelastic supply curve and to assume Apple's willingness to sell same quantity of iPhones at lower price; "the portion of the supply curve that concerns Mr. Boedeker's analysis is effectively vertical"; "assuming Apple would have sold the same number of iPhones despite the drop in what consumers were willing to pay is not especially farfetched because the marginal cost of producing an iPhone could still have been below consumers' willingness to pay"); *In re Lenovo Adware Litig.*, 2016 WL 6277245, at *21 (N.D. Cal. Oct. 27, 2016) ("Plaintiffs' survey expert 'consulted pricing of the Lenovo models at issue, as well as comparable PC laptops' to ensure that the results would 'reflect the market.'").

III.   BOEDEKER'S METHODOLOGY AND OPINIONS SHOULD BE EXCLUDED BECAUSE THEY ARE BASED ON IRRELEVANT AND UNRELIABLE CONJOINT SURVEYS.

Where, as here, the "pivotal legal question . . . virtually demands [expert] survey research" on "consumer perception," "the Court's gatekeeper function is of heightened importance." *Malletier*, 525 F. Supp. 2d at 562. Thus, "there will be occasions when the proffered survey is so flawed as to be completely unhelpful to trier of fact," and "its probative value is substantially outweighed by its prejudicial effect." *Id.* at 563; *see also Kargo Glob., Inc. v. Advance Magazine Publishers, Inc.*, 2007 WL 2258688, at *6 (S.D.N.Y. Aug. 6, 2007) (courts exclude surveys where "flaws in methodology are so severe that the survey's probative value is substantially outweighed by its potential for unfair prejudice and confusion."); *In re Fluidmaster,* 2017 WL 1196990, at *31 (excluding proposed survey, noting that "[w]hile any one of these methodological issues, standing alone, might not be fatal, the Court is sufficiently concerned that their combination renders [the expert's] proposed survey unreliable.").[79] Courts excluded survey and related opinions "where a single error or the cumulative errors are so serious that the survey is unreliable or insufficiently probative." *THOIP v. Walt Disney Co*., 690 F. Supp. 2d 218, 219 (S.D.N.Y. 2010) (Scheindlin, J.). The cumulative survey errors, including the two fundamental flaws discussed below, provide an additional basis to exclude Boedeker's opinions in this case.

A.   Boedeker's Surveys Do Not Replicate Actual Marketplace Conditions.

Boedeker's surveys are deficient both legally and scientifically because they fail to replicate (or even approximate) real-world market conditions. For example:

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[79] In addition, courts have cautioned that surveys are frequently inherently biased on favor of the commissioning party, and advised that "caution is required in the screening of proposed experts on consumer surveys," especially because "stakes are much higher when actual shopping decisions have to be made (because that means parting with money) which may influence responses" and "the expert witnesses who conduct surveys in aid of litigation are likely to be biased in favor of the party that hired and is paying them, usually generously." *Kraft Foods Grp. v. Cracker Barrel Old Country Store, Inc.*, 735 F. 3d 735, 742 (7th Cir. 2013).

- Survey respondents were given a choice of adding "safety features" that already come standard on the vehicles and therefore respondents would have no option to include or exclude such standard features in the actual marketplace.[80]

- Respondents had the option of purchasing vehicles with an open recall even though "federal law prohibits the sale of new cars with open recalls."[81] 2nd Rpt. ¶ 152.

Because these survey questions (among others) "call upon respondents to imagine themselves in situations they cannot accurately picture," as a scientific matter, the questions "cannot produce reliable estimates of how [respondents] would actually respond to those situations." 8/13/18 Diamond Rpt. ¶ 22.[82]

Boedeker's failure to replicate marketplace conditions is a structural, scientific defect that renders all of his conjoint surveys unreliable and mandates exclusion. *See, e.g., THOIP*, 690 F. Supp. 2d at 237-37 (excluding survey and opinions in trademark case as unreliable when it failed to replicate marketplace conditions and "did not sufficiently approximate the manner in which consumers encountered the parties' products in the marketplace."); *Simon Prop. Grp. L.P. v. mySimon*, 104 F. Supp. 2d 1033, 1044 (S.D. Ind. 2000) (excluding in trademark case survey that did not replicate marketplace by presenting only products at issue, removing additional inputs available to real world consumers, and omitting information available to consumers).[83]

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[80] *See e.g.,* Respondent #2058 ("Rear View camera is standard, why is it even an option to be included?"); Respondent #1175 ("Rear view cameras are required in California so extra cost should not be an issue, just part of the vehicle's price."); *see also* 2/23/18 Jason Rpt., Ex. B 4-20.

[81] A proper but-for world should isolate the effect of the harmful act by assuming a scenario in which a defendant's alleged unlawful actions are replaced by proper actions, not by "alternative but also unlawful actions (*i.e.*, selling vehicles with disclosed but unrepaired safety defects)." 8/13/18 Cornell Rpt. n. 10 (citing Allen, Hall, & Lazear, "Reference Guide on Estimation of Economic Damages," *Ref. Man. on Scientific Evid.* 3rd ed. (2011) at 432").

[82] *See also* 8/13/18 Diamond Rpt.¶ 22 ("While considering preferences among various safety features is not unrealistic, it *is* unrealistic to expect respondents to be able to accurately put themselves in an unrealistic situation and imagine how they would respond to it….At the beginning of the *Reference Guide on Survey Research,* I observed that "if survey respondents had been asked in the days before the attacks of 9/11 to predict whether they would volunteer for military service if Washington, D.C., were to be bombed, their answers may not have provided accurate predictions" (Reference Guide, p. 362, fn. 7).").

[83] *See also Am. Footwear Corp. v. Gen'l Footwear Co.*, 609 F.2d 655, 661 n.4 (2d Cir. 1979) (non-conjoint survey in trademark case that failed even to come close to replicating "actual marketing conditions" was properly rejected by district court); *Troublé v. Wet Seal*, 179 F. Supp. 2d 291, 308 (S.D.N.Y. 2001) ("Although no survey can construct a

B.   Boedeker Did Not Survey A Representative Population.

It is settled law that "[f]or a survey to be valid, 'the persons interviewed must adequately represent the opinions which are relevant to the litigation.'" *In re Fluidmaster*, 2017 WL 1196990, at *29; *Malletier,* 525 F. Supp. 2d at 580–81 (expert must show "the proper universe was examined and the representative sample was drawn from that universe.") (citing S. Diamond, *Reference Guide on Survey Research*, *Reference Man. On Scientific Evid*, 2d. ed. 2000, at 236-72).[84]

But Boedeker did not study—let alone attempt to limit the survey participants—to those who were reflective of or actual putative class members; and he did not attempt to ensure that the age, economic characteristics, education matched or were even approximately similar to the proposed class.   Indeed, Boedeker's survey population likely included substantial numbers of pickup-truck buyers.   8/13/18 Diamond Rpt. ¶ 18.   These demographic and other differences impact the economic losses estimated under Boedeker's methodology.   8/14/18 Marais Rpt. ¶¶ 27-33, App. C, D.1.   Ultimately, Boedeker "failed at the start by using a misspecified population and consequently an unrepresentative sample of survey participants."   2/23/18 Diamond Rpt. ¶ 9. Likewise, "Mr. Boedeker provides *no* evidence that his sample of GM vehicle purchasers replicates the characteristics of *any* well-defined target population, much less the target population of class members."   2/23/18 Marais Rpt. ¶ 74. Because the survey is non-representative, the "results cannot be extrapolated to putative class members."   *Id.* ¶ 19; *see also Marlo v. United Parcel Serv., Inc.*, 251 F.R.D. 476, 485–86 (C.D. Cal. 2008), *aff'd,* 639 F.3d 942 (9th Cir. 2011)

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perfect replica of 'real world' buying patterns, a survey must use a stimulus that, at a minimum, tests for confusion by roughly simulating marketplace conditions"; excluding non-conjoint survey in trademark case); *see also Amorgianos v. Nat'l R.R. Passenger Corp.,* 303 F.3d 256, 266–68 (2d Cir. 2002) ("[W]hen an expert opinion is based on data, a methodology, or studies that are simply inadequate to support the conclusions reached, *Daubert* and Rule 702 mandate the exclusion of that unreliable opinion testimony.").

[84] Boedeker agrees that "representativeness of the survey is important," 2/6/18 Dep. 190:8-16, and admits that, if a conjoint survey—like the one on which he bases all of his opinions—is given to the wrong people, it is inherently flawed and its conclusions will be unreliable. 7/6/18 Dep. 467:18-468:6.

(decertifying class because survey was "not the product of reliable principles and methods" and could not "qualify as common proof … because it is unrepresentative, unreliable, and has essentially no probative value") (citing Diamond at 245-246). Moreover, Boedeker provides no reliable basis for extrapolating from his surveys "one numerical figure" of loss to each proposed recall classes. 1st Rpt. ¶¶ 129-130; 3rd Rpt. ¶ 5. He admits he did not determine loss for *any* individual putative class member, or among purchasers of similar vehicles.[85] But Boedeker assigns, for example, a $966 per-vehicle-losses to 14v346 and 14v400 recall classes even though vehicles in the former recall were predominantly *new* purchased 2010-2014 Camaros, while the latter includes mostly pre-2005 vehicles purchased *used*.[86] Additionally, Boedeker admits that his entire survey work dealt with new not used vehicle purchases, which he admits are subject to different factors. Boedeker 7/5/18 Dep. at 410:3-11; 2nd Rpt. ¶ 141. In addition to the other flaws, he has therefore no basis to assign "losses" regarding used vehicle purchases. The impact of this unfounded class extrapolation assumption is shown by the absurd prices named plaintiffs "would have paid" if Boedeker's "median" economic loss were applied to the real-world vehicle prices named plaintiffs actually paid.[87]

IV.   BOEDEKER IS NOT QUALIFIED TO OFFER HIS NOVEL ECONOMIC OPINIONS.

The myriad methodological errors, deviations from settled economic principles, and irrational results are symptoms of Boedeker's lack of qualifications. Boedeker's opinions are based "solely" on statistical analyses and an invented economic damages methodology based on

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[85] 7/5/2018 Dep. 196:10-197:4; 7/6/2018 Dep. 483:19-484:2.

[86] 3rd Rpt. ¶ 5; 8/14/18 Marais l Rpt. ¶ 34.

[87] *See also* Ex. 136, Named Plaintiff Price Paid Compared to Boedeker Proposed "Median Loss" (applying Boedeker's "median" economic loss to show, for example, one plaintiff "would have paid" only $6,490.74 for a *new* Saturn Ion and another "would have paid" only $2,710.74 for a three year-old Cobalt)

his conjoint surveys. 2/6/18 Dep. 59:20-62:22. These subject matters require specialized expertise in conjoint study design and implementation, consumer behavior, marketing, economics, economic damages methodology, and statistics, which is why Boedeker cites to and purports to rely upon the leading experts in those specialized fields. Boedeker's *ipse dixit* assertion of a penalty-based theory of damages, is outside the province of expert testimony altogether. New GM has not identified any case where a Court was confronted with a direct challenge to Boedeker's qualifications.   However, Boedeker's lack of qualifications provide an additional basis for exclusion here. *S.E.C. v. Tourre*, 950 F. Supp. 2d 666, 674 (S.D.N.Y. 2013); Fed. R. Evid. 702.

A.   Boedeker Admits He Is Not An Expert In The Relevant Scientific Disciplines.

Boedeker holds no Ph.D. in economics, mathematics, statistics, or any other discipline. 4/20/17 Dep. 62:21-25; 6/13/17 Dep. 45:11-24; 2/6/18 Dep. 23:11-16. He is not an expert in and has no degree in marketing or advertising, or consumer behavior or psychology. 4/20/17 Dep. 63:1-4, 76:8-77:4, 76:20-77:4; 6/13/17 Dep. 29:20-23, 33:7-10; 33:19-34:5; 43:22; 2/6/18 Dep. 29:23-25. He has a grand total of "one publication" that is not relevant to any issues in this case and that may not even have been peer reviewed. 4/20/17 Dep. 63:22-65:13, 65:17-20; 2/6/18 Dep. 33:13-17. Boedeker, in short, does not have the expertise necessary to speak to the specialized issues of conjoint surveys, economics, and statistics here. "A scientist, however well credentialed he may be, is not permitted to be the mouthpiece of a scientist in a different specialty." *Dura Auto. Sys. of Indiana, Inc. v. CTS Corp.*, 285 F. 3d 609, 614 (7th Cir. 2002).

Boedeker admits that he is not even an expert in conjoint analysis—but simply a "user":

Q: Nor are you an expert in conjoint analysis, are you?

A: I mean, I'm a user. The first time I started a -- I used a conjoint analysis was probably in the late '90s in a consulting context, and basically have read research, have read textbooks, have run conjoint studies. So from that end, it's-- I'm an experienced user, but I've not developed the methodology or written papers about it or taught classes about it.

47

4/20/17 Dep. 77:5-14; *see also id.* at 65:14-16; 2/6/18 Dep. 33:18-25.   Boedeker's candid

admission that he is nothing but a "user" of the expert work done by others in one of the disciplines

at the heart of his opinions is telling.[88] Boedeker offers opinions reserved for those with expertise

in advanced, specialized areas of the fields of economics, conjoint surveys, and statistics which he

lacks. Boedeker's opinions are contrary to basic economics, 2/23/18 List Rpt. ¶¶ 124-127, and he

is not simply not qualified to give them.

Significantly, courts exclude experts who, like Boedeker, offer opinions based on conjoint

surveys but lack the requisite expertise to opine on the subject matters involved in their analysis.

In *Wolf v. Hewlett Packard Co.*, for example, the Court excluded an expert who, although he had

an MBA and was familiar with various statistical techniques and had served as a professional

testifying expert, lacked "sufficient expertise in the area of consumer behavior prediction

generally, and in the performance or analysis of conjoint studies specifically to opine on the

matter." 2016 WL 7743692, at *6–8, 13 (C.D. Cal. Sept. 1, 2016). Like Boedeker, the proposed

expert in *Wolf* had "no background in consumer psychology, nor in statistical methods for

predicting consumer behavior"; "no educational or professional background in survey design or

sampling"; and had not "published peer-reviewed articles on discrete choice modeling, conjoint

experiments or analysis, or survey design/sampling." *Id.* at *6.

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[88] *See State of N.Y. v. United Parcel Serv., Inc*, 2016 WL 4735368, at *8 (S.D.N.Y. Sept. 10, 2016) (excluding proposed expert who "lacked the qualifications to design and conduct the survey that forms the basis of his report"; expert's "overall lack of survey experience undermines his ability to design and implement a survey according to a method that will best ensure reliable results."); *Bloom v. ProMaxima Mf'g Co.*, 669 F. Supp. 2d 321, 329 (W.D.N.Y. 2009) (excluding opinions where expert "candidly conceded that he was not competent to testify on the issue of design and that he had no engineering expertise."); *Long v. Monaco Coach Corp.*, 2007 WL 4613000, at *6 (E.D. Tenn. Sept. 27, 2007) (excluding expert who "testified repeatedly that he was not an expert in the field of valuation").

B.   **The Recognized Experts Upon Whom Boedeker Claims To Rely Uniformly Opine That Boedeker Departs From And Violates Basic Economic And Statistical Principles.**

At best, Boedeker's opinions reflect his personal views about what economic loss damages *should* be allowed under the law where "active deception" exists and how such damages *should* be calculated using his own idiosyncratic principles of pseudo-economics, statistics and conjoint surveys; they do not measure a price premium economic loss endorsed by any economist or allowed by the applicable benefit-of-the-bargain law. Boedeker, however, attempted to bolster his credibility and that of his conjoint survey analyses and damages methodology by citing the published works of well-respected and impeccably credentialed experts in economics, surveys, and statistics. These recognized experts then reviewed his work and opinions in this case. Their condemnation of his competency is universal, sweeping, and unequivocal. For example:

- Daniel McFadden, M.B.A., Ph.D. concludes that Boedeker's report and methodology improperly deviate from standard economic methodologies set forth in the very literature Boedeker cites, and that his "conjoint analysis is deeply flawed and cannot produce any reliable results." 2/23/18 McFadden Rpt. ¶ 9.

- Peter Rossi, M.B.A., Ph.D, personally developed the Hierarchical Bayesian Choice-Based Conjoint, the most widely used method for conjoint analysis and the method Boedeker claims to use. 1st Rpt. ¶¶ 31, 104, 107, 132; *id.* App. E, at 66-67. Dr. Rossi (whom Boedeker repeatedly cited and relied upon in his *Orange County* expert report, which he also now cites in this case), concludes that Boedeker "invents his own measure of damage" that is "not endorsed by any economist that [he is] aware of"; and (ii) "does not provide any citations to research by economists endorsing this measure because support for this measure does not exist." 2/23/18 Rossi Rpt. ¶¶ 3, 5, 8-9 10-11, App D.

- Shari Diamond, Ph.D. is the author of the Reference Guide on Survey Research in the Federal Judicial Center's Reference Manual On Scientific Evidence (3rd ed. 2011). Boedeker cites to and relies upon Dr. Diamond's work, claiming he has followed the best survey practices described in her Guide. 1st Rpt. ¶¶ 76, 83. But, as Dr. Diamond explains, Boedeker failed to comply with basic survey requirements as well as the generally accepted survey methodologies set forth in her Guide. 2/23/18 Diamond Rpt. ¶ 6.

At the end of the day, Boedeker's reports are incompatible with economic principles and are riddled with numerous mathematical and statistical errors. 2/23/18 Rossi Rpt. App. D; 2/23/18

Marais Rpt. ¶¶ 6-9; 11-24 32-38, 69-71, 83-85. Dr. List explains that Boedeker's methodology reflects a "misunderstanding of basic economic principles regarding how prices are determined," and is "[c]ontrary to accepted economic principles and standards," rendering his damages methodology unreliable because it "makes no sense" and in fact "is impossible." 2/23/18 List Rpt. ¶¶ 4, 10, 1. Boedeker's work in this case is at odds with and inconsistent with what Dr. List has "taught for more than 25 years on the very first day of [his] Economics 101 course" and therefore cannot compute economic loss for alleged class members. *Id.* ¶¶ 124-127.

CONCLUSION

Plaintiffs cannot meet their burden to establish that Boedeker's methodology and opinions meet Rule 702's reliability, relevance, or qualification requirements. This is precisely the type of case where the Court should employ "[t]he flexible *Daubert* inquiry" "to ensure that the courtroom door remains closed to junk science." *Amorgianos* 303 F.3d at 266–67. For the foregoing reasons, New GM respectfully requests the Court exclude all the opinions and testimony of Stefan Boedeker.

Dated: September 21, 2018   Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on September 21, 2018, I electronically filed the foregoing Motion using the CM/ECF system which will serve notification of such filing to the email of all counsel of record in this action.

By: */s/ Andrew B. Bloomer, P.C.*
Andrew B. Bloomer, P.C.

1